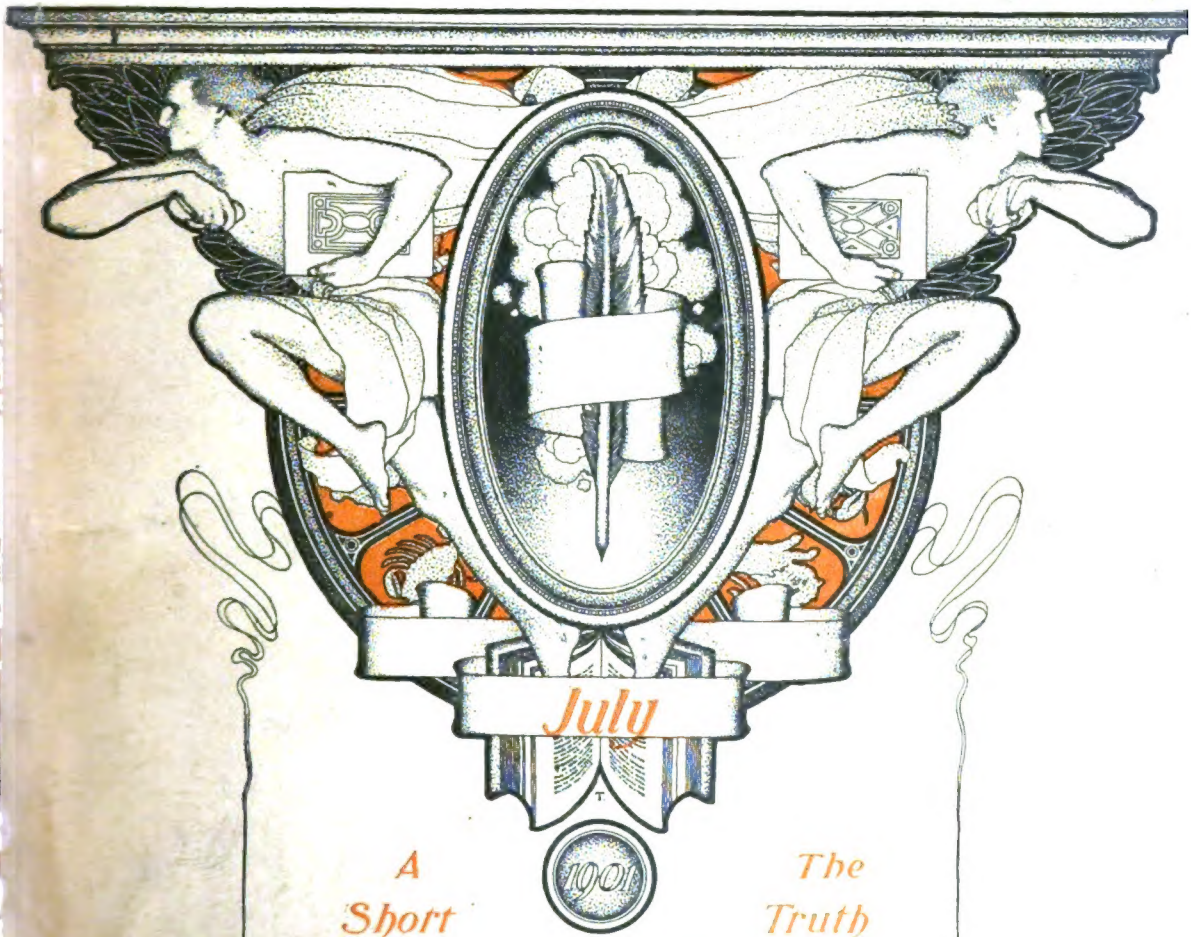
July

V.5 no 1-6

Price 10 Cents

207

Everybody's Magazine



A Short Story by Booth Tarkington

The Real Sultan of Turkey

The Truth about Christian Science

John Wanamaker Publisher

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

Digitized by Google

Original from
UNIVERSITY OF MICHIGAN

"'THAT ARRANT LITTLE REBEL, MISTRESS PHYLLIS WESTMACOTT.'"

Illustrating "From the Chops of the Lion."

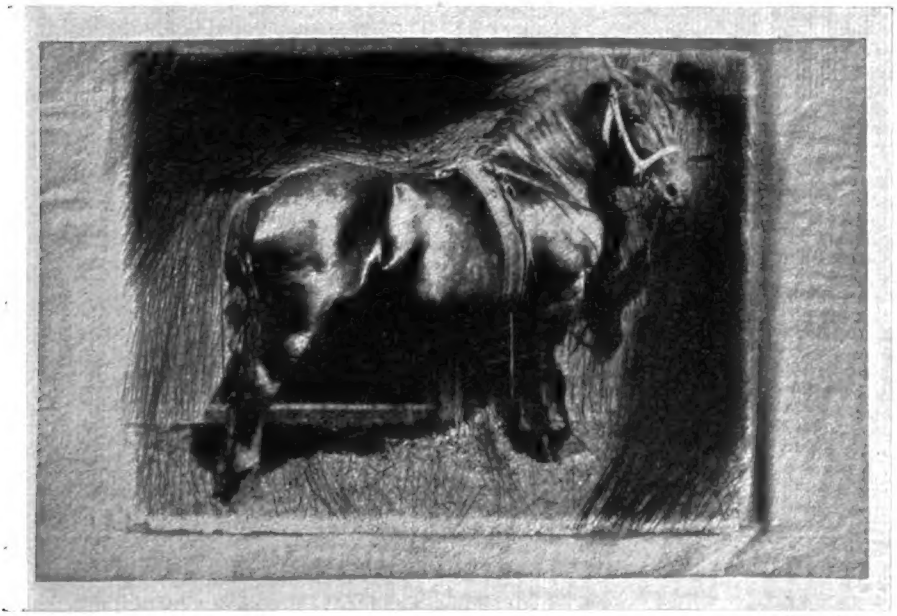
Digitized by Google

Original from
UNIVERSITY OF MICHIGAN

EVERYBODY'S MAGAZINE

VOL. V. JULY, 1901. No. 23.

"THE HORSE." SHOWING A BOLD USE OF ETCHING ON THE BACKGROUND.



By Frank Eugene.

PHOTOGRAPHY AS A FINE ART.

IV.—METHODS OF INDIVIDUAL EXPRESSION.

ILLUSTRATED BY THE WORK OF FRANK EUGENE AND JOSEPH T. KEILEY.

IT is not because the work of these gentlemen offers any special point of resemblance that their names are coupled; nor do I propose to institute any comparison. But they have in common an identity of motive, which, however, is shared by innumerable others, so that it is as the type of a class, and as illustrating an important phase of photography, that they are to be considered here. They represent, at any rate, in a great deal of their work, the opposite to the "straight photograph." They largely "manipulate" their negatives or prints to secure the desired result.

In the paper on Alfred Stieglitz it was mentioned that he is the most prominent advocate of the straight photograph; that he deprecates any deviation from reliance upon the scientific process; that he conceives his subject, waits for the fortuitous union of conditions, makes his negative and abides by the result, moderating it only, if ever, during the process of printing, by eliminating certain details or strengthening others. And it was stated, I hope convincingly, that in his work the straight photograph is triumphantly vindicated. But different minds work differently, though the goal of intention may be the same.

Digitized by Google 43885 Original from UNIVERSITY OF MICHIGAN

By Frank Eugene, 1900.

PORTRAIT OF ALFRED STIEGLITZ.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

The goal of the best photographers, as of all true artists, is not merely to make a picture, but to record in their print and transmit to others the impression which they experience in presence of the subject. This sounds like "Impressionism," and indeed it is, in the broadest meaning of that term, which, however, in common usage has been whittled down to a narrow significance, to particularize that group of artists whose fondness for painting light would better justify the distinguishing name of "luminarists." In a broad sense all artists are impressionists. They do not picture the object itself, but what they are conscious of seeing. One man may be satisfied to represent merely the external facts of the object; but if nine other men, facing the same object, set about doing the same thing, the ten would not produce identical results. In each case it would be tinged by the individual's particular way of seeing. The thing pictured would not be the object, but a record of the impression made by it on each of the separate pairs of eyes; every one of the ten would be involuntarily an impressionist.

Another man, however, will be conscious of the impression made upon his mind; and it will seize upon his imagination, and thus become itself colored by his personality. If, then, he tries to picture this impression, using the object, not as an end in itself but as contributory to his impression, omitting some details and emphasizing those most important to his purpose, he is an impressionist in the sense in which we are using the term here. I cannot better signify the difference between the painter or photographer who is satisfied to be a recorder only of the external facts of the object, and him who forms a vivid mental conception of it and tries to make us realize his impression, than by comparing the street arabs of J. G. Brown with Murillo's. The former are, as it were, word for word translations into paint of the shoeblack or newspaper-boy—snatched, too, from their context of busy city life and rendered in isolated fragments; nor, it may be added, with much characterization of the dirt and super-sharpened wit of the originals. Murillo, on the other hand, saw his boys as part of the lazy, sunny, shiftless life of the Spanish street—attracted, no doubt, as a painter by the artless freedom of their gestures; and he painted them with the dusty sunshine on their healthy burnished limbs, and with the dirt encrusted on the soles of their feet, which, you remember, so troubled Ruskin. But Murillo in his sympathy with boy life had no horror of dirt, no doubt seeing in it the reason why those limbs were so lithe and sinewy; the boys running wild like young creatures of the forest and basking in the sunshine, as near to nature as the denizen of a city can get.

Or, again, to emphasize this point, let me compare Abbey's illustrations of Goldsmith's "She Stoops to Conquer" with those he made for Shakespeare's comedies. In the former a trivial interest in what the characters are represented as doing is swallowed up in the larger enjoyment of the wonderful way in which the artist has recreated the atmosphere and sentiment of the old times. He made them in the little village of Broadway, in England, where the mind, as those who have lived there know, can readily detach itself from what is modern and drift naturally and easily into the old feeling. Enough of it still survives to whet the imagination and help it to conjure up vivid impressions of the past. But when he came to illustrate the comedies of Shake-

By Joseph T. Keiley.

PORTRAIT OF ZOLNAY, THE SCULPTOR.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

Reproduction from a glycerine print by Joseph T. Keiley.

"CORNFIELD VISTA" IN AFTERGLOW OF AN AUTUMNAL SUNSET.

speare, he found no such spontaneous inspiration, and had recourse to archæological research; the illustrations are satisfactorily correct, but impressionless. On the other hand, when Elihu Vedder undertook the illustrating of Omar Khayyám, he did not picture literally the phraseology of the text, but absorbed its spirit, and, having taken the beauty and meaning into his own soul, gave out of himself a painter's equivalent for the thought and imagery of the poet. So his work stands as an interpretation or, better still, a reincarnation. The old Persian's thought has transmigrated into a new state.

Even to any one who has not thought of

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

these things before, one may hope that there is a dawning consciousness that this conceiving and imparting an impression is more to be desired than a bald statement of fact, such as would be obvious to any one; just as we hang upon the speech of an orator, less for the facts he formulates than for the new significance they acquire after being fused in the crucible of his own vigorous personality. If, therefore, I have been so fortunate as to carry my reader with me, we have reached the conclusion that the chief beauty in a work of art, be it painting, photograph, or silver salt-cellar, is the evidence of the artist's expression of himself. It is manifested diversely. In a portrait, as we said in the last paper, it shows itself in ability to sympathize with

Reproduction from a glycerine print by Joseph T. Keiley.

"AUTUMN TWILIGHT."

This scene is identical with "Cornfield Vista," reproduced on opposite page, but the character has been altered in the printing

Digitized by Google Original from UNIVERSITY OF MICHIGAN

Reproduction from a glycerine print by Frank Eugene.

"NIRVANA."

An interesting experiment. By the use of the brush and needle the sofa upon which the model reclined has been converted into water.

the subject, to penetrate behind the mask of the features, and to present an epitome of character as well as of appearance. Again, in ever so simple a picture of domestic life, a *gênre* subject, there will be given not only the facts of the episode and its local surroundings, but also the essence of the matter, the sentiment ; not expressly stated, but to be felt. I remember a very happy example in the Danish Section at the recent Paris Exposition in a picture by Irminger, called "Past Midnight." A young husband is studying or writing, and the wife has slipped down in her night-robe and stands behind his chair. The story is trivial enough, but I would draw attention to the artist's way of telling it. In the choice of details, simple and refined: the soft, diffused light from the shaded lamp, glinting tenderly on the flowers, leather backs of books, and the young man's earnest face mostly in shadow, and shed so reticently over the white-clad figure of the girl-wife ; the lovableness of a happy home, the beauty of absolute accord, are suggested with an amount of imagination that lifts a trifling circumstance into a poem. Or, again, the photographer or painter may render a landscape that we recognize as true to nature, but which affects us as little as the glimpses that flash before the eye as we speed along the railroad. The fault may be in ourselves or in the painter's inability to conceive and transmit a vivid impression.

A love of nature is one of the things that you cannot buy at a department store, nor may it be acquired from text-books. It must have origin and growth in ourselves. But if I am speaking to a lover of nature, he knows better than I can say that his joy in it is the result of communing, companionship, and intimacy with nature. That clump of trees upon the rising ground has a vigor of outline that long ago arrested his attention, but he has become so used to its features that he takes them for granted, as we do the face of a friend. Meanwhile, what interests him is their ever-changing

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

play of expression. At dawn, noonday, or twilight, under gray light or burning sunshine, when storm is gathering or everything is at peace, in countless other vicissitudes of local conditions, those trees, lighted up against the sky, take on moods and changes of expression, making constant variety of appeal to his imagination, and always somehow fitting in with his own mood of feeling. In our ability to put ourselves thus at one with nature we ourselves are artists—unable, however, to give utterance to the thought. The creative power is lacking, and this is the distinguishing characteristic of the artist. He is the creator; and, the more we realize this, the greater our delight in art which involves a personal expression, and the less interest we feel in the process which merely records facts.

In the early stages of photography, man's interest was captured by the camera's ability to record facts; to-day, the artist's aim is to make it record his impressions of the fact, and to express in the print his personal feeling. The camera's ability was overrated. Because it can take in so much more detail than the human eye, its accuracy of vision was regarded as infallible; whereas, in effect, it is less accurate than the trained eye, falsifying the record by undue enlargement of the objects near, and diminution of those more remote. So the artist in his search after truth has set himself, first of all, to correct the camera's failings; not, however, in the generally accepted way, as, for example, by eliminating every inequality in the features of a portrait and reducing them to the simpering smoothness of a milliner's wax model. This is the commonplace method, aided and abetted by the variety of the sitter. I have heard it stated, in connection with a portrait, that the artist would have done well to soften down the prominence of the bones in the lady's neck. For my own part, I think the lady would have done better to cover up her bony neck. The prominence of these bones has a physiological relation to her character, and for the artist to have clothed them with firm, soft flesh would have been to contradict the expression of the face. But this is dangerous ground! Let us leave it for the safer one of landscape. Suppose the vista to be photographed is a mile in length, every yard of it gradually receding from the foreground. If the camera jumps the middle distance, and extends the horizon in appearance to two miles away, the whole character of the scene is falsified. The photographer in the printing seeks to cor-

"SONG OF THE LILY." *By Frank Eugene.*

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

rect this deviation from the truth. This is his first argument in favor of manipulating the print; and some photographers have another. "That scene," says one, "excites a certain impression in my imagination, the result partly of association, partly of my individual temperament. I want to express that phase of the scene and communicate it to you. The unresponsive eye of the camera will not see what I am striving for, but I will try to extract from its record or infuse into it my motive." So he manipulates his print. Another with the same end in view will manipulate the negative. The latter may use Chinese white or India ink to increase, respectively, his lights and darks; or, as Mr. Eugene often does, will draw or paint or etch upon the negative. There are many methods of controlling the development of the print, but we will confine our notice here to the glycerine process of developing platinum prints, because it is the one which Mr. Keiley always uses, and which in conjunction with Mr. Stieglitz he has brought into extended usefulness.

Briefly, the process is as follows: a print is made from the negative upon platinum paper in the usual way; unlike silver printing, in which the image prints out by the action of light, the image on the platinum paper is very faint, needing a further process of developing, and it is at this point that the photographer controls his results by means of glycerine. The print is coated with it, and the effect of this is to retard the action of the developing solution which, either pure or mixed with glycerine, is then applied with a brush. The pure developer brings out the platinum black, or, when diluted with glycerine, the lighter tones, while in the parts to which the pure glycerine is applied no development ensues. So the operator, by merely spreading the glycerine, can eliminate what he pleases from the print, and convert light parts into dark, or *vice versâ*. The advantages of this process are summed up in a brochure, entitled "The 'Camera Notes' Improved Process for the Development of Platinum Prints, including the Experiments of Joseph T. Keiley and Alfred Stieglitz." "The great merit of this method of development" — the words are Mr. Keiley's—"lies (*a*) in its corrective possibilities, and that through it the manipulator is enabled to reclaim the print from the rigid bondage of the hitherto unalterable renderings of values recorded therein during the process of printing, and (*b*) to introduce into it his own conception of the values, tonal qualities, feeling and artistic effect of the theme under treatment."

By Joseph T. Keiley.

"AN INDIAN MADONNA."

I have taken the liberty of dividing the quotation into two statements, because they seem to contain the gist of the difference between its use by the straight photographer and the other one—I cannot call him "crooked"—who claims unrestricted liberty of action. The former only *modifies* the result; the latter reserves the right to *alter* it. The straight photographer may feel a shadow to be too dense, so he reduces it in the printing; or the foreground too full of detail, and confuses it to bring it to a mass, or he will retard the printing of the stronger parts while he coaxes up the delicate tones in the sky, and so on. But the result is substantially nature's image. On the other hand, a reference to the two parallel examples of a cornfield by Mr. Keiley, reproduced on pages 6 and 7 of this article, will show how completely in the second one the character of the scene has been altered in the printing. Or, again, as an instance

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

of manipulating the negative, note the "Nirvana" by Mr. Eugene. The model was posed upon a sofa, but this has been obliterated and water substituted, by the use of the brush and needle. We could not have more suggestive examples of departure from nature than these; the latter a subject built up to express an ideal conception, and the former a twisting of nature into the groove of the artist's own impression.

Immediately two reflections occur. Firstly, such alteration of the negative's version demands the skill of the draughtsman or painter; in the hands of any one without training in art it will lead to deplorable results. But this need not be dwelt upon, since it involves no further statement than the fact that a man should not try to drive an automobile on a crowded street until he has learnt how, and the best way of learning is to study the theory and then put it in practice. But the second reflection does involve a serious consideration. If nature is the source of beauty (and few of us will question it, particularly in the case of landscapes), can we derive as much pleasure from an interpretation of nature evolved out of a man's brain, however poetical, as from one studied from nature direct? Perhaps we may; but not, I think, if we ourselves are nature-students. You may have observed in a collection of painted landscapes how some have the real open-air feeling, bringing to your imagination the fragrance and tonic of the breeze, the joyousness of sunshine, or the mystery of twilight; while others, beautiful in their way, considered simply as pictures, yet suggest that the painter has worked them up in his studio—having made sketches out of doors, no doubt, but trusting to them and his memory for his interpretation. His impression is a second-hand one, and we feel it so, missing the spontaneous truth of the picture conceived and completed in the presence of nature and in the exuberant enjoyment of her immediate inspiration. On the other hand, I do not forget that there is room for pictures of the imagination as for poems or music drawn from the artist's inner consciousness; and if the painter's or photographer's imagination is full and powerful, he may give us pictures of great beauty. But such imaginations are few and far between, and for the majority it is safer to be students of nature than weavers of their own fancy.

By Frank Eugene.

"YOUNG MAN WITH 'CELLO."

A fair conclusion seems to be that while these landscapes of the imagination may be handsome pictures and emotional, they will lack the subtlety and infiniteness of nature's truth—representing the impression in broad, discursive manner. The reproduction of Mr. Keiley's "Garden of Dreams" illustrates this. It is wrapt in a solemn pensiveness, as if the tread of Time were hushed, and nature were wooing to gentle contemplation. But I find no mystery in the scene or range for my imagination. The wall of trees

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

Reproduction from a glycerine print by Joseph T. Keiley.

"GARDEN OF DREAMS."

An imaginative photograph of a landscape.

is impenetrable, and does not lure the fancy on to lose itself in shadow; the lily-pads, floating on the smooth water, are lighted almost uniformly, those beneath the shadow as well as those in light; there are not the delicate differences of tone that would make the scene vibrate. The stillness, in fact, is rather of death than of sleep. Again, in the "Autumn Twilight" evolved from the "Cornfield Vista," I find variety of tone in the light and dark upon the shocks, but neither the impressive intelligibility of massed lights and shadows nor the delicious surprises of effect that the waning light, lapping the shocks and stealing between the leaves, would give in nature. Nor is the black mass in the sky convincing. It is not the darkening of the upper sky or gathering cloud on the horizon, for it has no construction; it seems rather a shred of rainy mist carried by wind, which scarcely is in tune with the serenity of the scene. One finds it, in fact, a beautiful arrangement of dark and light, but from its lack of truth to nature very limited in the range of its impressiveness. The reader, I hope, is not tired of this harping upon nature; but, after all, we can be impressed only through our experience. A hundred thousand persons perishing from famine in India do not move me as deeply as the death of a friend's little child. I love the child and the parents, and realize the awful gap now made in their home and hearts. And so the artist to arouse our imagination had better rely upon something we know and love in common. He finds it in nature, and his work, if true, becomes a part of her inexhaustibleness, setting no limits to his possibility of suggestion and to our receptivity of impression. If he lets go of nature, he accepts his limitations and imposes them upon us.

Therefore out of these eight examples of Mr. Keiley's work many of us will prefer the figure subjects, particularly those of Indians. They show such an intimacy of understanding and fulness of sympathy that we scarcely need to be told their author was an interested student of Indian life before he made these portraits. The head of a young girl, very sweetly called "An Indian Madonna," is inexpressibly moving, admitting us at once into the temple of a human mind. The outer court is beautiful, and the veil of mystery which hangs before the shrine not so dense but that we may peer through, guessing rather than seeing some vague hint of the mystery beyond. Who may penetrate the sacredness of a maiden's mind? And this is of an alien race—one fading from the earth, with mem-

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

ories and associations outside our own; she is of good education, too, and a beautiful habit of mind—what a tanglement of mystery one meets in trying to fathom the depth of her thoughts. The artist here has set us on the threshold of infinitude; there are no bounds to the suggestiveness of his picture or to the workings of our own imagination.

Mr. Eugene is unwarrantably regarded as the very antipodes of the straight photographer. As a matter of fact, he never manipulates his print, and by no means always touches the negative. We have noted,

By Joseph T. Keiley.

"A SIOUX CHIEF."

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

By Frank Eugene.

"PORTRAIT OF A CHILD."

The dress has been etched, apparently to make an effective contrast with the face.

By Joseph T. Kelley

"VINE-CROWNED." A SUMMER IDYL.

however, his daring experiment in the "Nirvana"; and again in "The Horse," reproduced at the head of this article, the background and straw have been fearlessly etched upon the negative, and brush and point as well would appear to have been used on the horse. The print, in fact, has the quality of texture and spontaneousness of a fine etching. On the other hand, the "Man in Armor" (a portrait of himself) has received no manipulation at any stage, and the same is true of the other portraits, with the exception of that of a child, in which the dress has been etched over, apparently to give it transparency and to throw by contrast more substantialness into the face. The fact is, Mr. Eugene is not unreservedly addicted to any method. A painter first of all, he gradually became interested in photography, and finally enthusiastic, discovering that it has possibilities for him unobtainable by any other process. He is a man of extraordinary vigor and versatility, keen after artistic problems; and whether he uses the negative straight or works it up or alters it entirely, is merely a question of expediency,

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

By Joseph T. Keiley.

"CITIZEN FOUCHÉ."

the sole aim being to reach the result in view. In his portraits and subject pictures he often uses backgrounds of his own painting, combining with them real foliage. Such is the case in the "Portrait of a Child," and, I suspect, in the "Song of the Lily." And note the exuberance of his artistic invention, the robust wholesomeness of his work, his skill in large and handsome compositions, and feeling for rich, impressional color. The examples shown here, "Nirvana" excepted, which is only an interesting experiment, illustrate these qualities, though they suggest but little of his versatility. He will be represented at the Glasgow International Exhibition by an

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

"Adam and Eve"—one of the most beautiful studies of the nude I have seen in any medium. The forms are noble, the dappling of light and shade as they stand in the garden exquisitely subtle; and while the beauty of flesh texture has been rendered admirably, the figures are treated with such artistic reticence that there is not a hint of nakedness.

I have spoken of the print of the cart-horse having the quality of an etching. This seems to have a bearing on the question sometimes asked of the photographer: If you desire the effect of an etching, of a chalk- or wash-drawing, why not etch or draw with chalk or water-color; why use the camera and confuse the processes? Well, to myself, that print, printed as it is on Japan paper, conveys every impression of an etching, having the beautiful characteristics that one looks for therein: spontaneousness of execution, vigorous and pregnant suggestiveness, velvety color, and delightful evidence of the personal touch. There is nothing sacred or even desirable in the mere process of etching upon copper apart from its results. If similar results can be obtained some other way, and the artist chooses to adopt it because he finds it easier or more congenial, what concern is it of ours? Surely none. I may have thought and written otherwise in the past. Let me admit conversion. The fact is, in this new art critics and photographers alike are feeling their way—they to expression, we to judgment. The art is still in the womb of time, its possibilities continually becoming wider and more appreciated; being new, one learns that the old standards and points of view do not necessarily apply to it, and more and more realize the need of an open mind.

By Frank Eugene.

"MAN IN ARMOR."

This portrait of himself received no manipulation by Mr. Eugene at any stage.

Meanwhile, as I have said, experience is the basis of our ability to appreciate: one can but speak as one knows, adding to that knowledge by degrees. So, in trying to enter into the question of manipulating the result, I have clung intentionally to the conservative standpoint, because in the eagerness of a new movement it may easily be overlooked; whereas, to alter slightly—or shall I say manipulate?—Gamaliel's advice to the Jewish critics of the new Gospel, "If it be of art ye cannot overthrow it; lest haply ye be found even to fight against art." And if I have said comparatively little concerning the individual work of these two artists, it is because I took them as a type, and believed that I could best arouse an interest in their work by dwelling upon the principles which it involves.

Digitized by Google Original from UNIVERSITY OF MICHIGAN

NATIVE THEATRE AT NUEVA CACERES, PROVINCE OF SOUTH CAMARINES.

SABE HIKE?

THE LIFE OF OUR SOLDIERS IN THE PHILIPPINES.

By Oscar King Davis.

Illustrated from Photographs.

IT was the second night of a typhoon, and the Calle Real de Malate was a running stream of thin mud. The sentry's poncho never had been big enough to protect him from the storm, and long ago the rain had soaked it through. His paper boots had softened into pulp. Little rivulets trickled off the brim of his campaign hat, and from where the soggy felt touched his head, the cold water drizzled over his face or down his shivering back. His two-hour tour was nearly over, and not once had its monotony been interrupted. As he turned toward Manila he saw, under the sputtering arc-lights, a horseman splashing down the road. The cap showed him that it was an officer. He swung his rifle to "port arms," and shouted:

"Halt! Who's there?"

The officer pulled up promptly on the challenge, and replied, "Officer of the command."

"Dismount, officer of the command," ordered the sentry; "advance and be recognized."

The officer hesitated, and the sentry loudly repeated his command:

"Dismount and be recognized."

"I'm Captain Lantry of the Fourteenth Infantry," shouted the officer, "and I don't want to get down."

The sentry knew the name. He was a volunteer, and this was the captain of regulars who had inspected his battalion and said so many unpleasant things about it in his report. There was determined emphasis in his voice as he roared:

"Dismount, Captain Lantry of the Fourteenth Infantry, and be recognized."

"But I tell you I don't want to get down," protested the captain. "I'm an old man, and it's all mud, and I'll get wet, and——"

"Dismount!" bellowed the sentry, lowering the muzzle of his rifle significantly.

The captain saw the movement. Moreover, he knew the manual of guard duty, and that the sentry was well within his rights. It was, in fact, an exhibition of

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

UP THE BICOL RIVER.

that exact and impartial performance of duty for which he had always contended. He swung out of his saddle and waded through the mud up to the sentry. As the soldier made out the marks of rank on the officer's coat-collar, he brought his rifle to the old position with a snap, stepped a little one side, and shouted:

"Pass, Captain Lantry of the Fourteenth Infantry."

The captain climbed back into his wet saddle and splashed down the road, swearing to himself. The sentry watched him disappear into the blackness, and said with a chuckle:

"Sabe hike?"

But that was before the insurrection began, and nobody in the army then knew the verb "to hike," as they all learned it a few months later. It was in the first stages of its development then, and men called it hiking when they did a two-hours' turn of sentry duty.

The one dictionary which condescends to notice this humble word says that the first meaning of "hike" is to "jerk, or drag out," and specifies the yanking of a frog off a log by a hook and line as an example of hiking. The second meaning is to "proceed slowly," to "slouch along." This dictionary was published before the Philippine insurrection began. Now hike is a verb and a noun. It means both to do something and the thing done. A hike is an expedition of troops, big or little and covering any distance. The men who compose it "hike" from starting-point to finish. "Sabe hike?" is the password of the men, but little by little its use has been restricted to the severer expeditions, and now it is only when a man has fought the jungle, or climbed mountains, or traversed tremendous gorges, or marched and fought all day under the direct sun without water, that he is entitled to grin when his comrade asks, "Sabe hike?"—the grin that betokens knowledge of all hardship.

It was only an incident of one hike that, after marching all night, we reached a river soon after daybreak. It was four feet deep, cold, and swift. When we had crossed it the colonel halted the wet and shivering men for breakfast, and it seemed not to have occurred to him that he might have stopped on the dry side of the river for the meal. He was new to that sort of work, and did not "sabe hike."

Having marched all night we went on to fight all the morning. The enemy were in the hills, and for once there was no tangle of scrub and brush, with thorny bamboo to spike you as you crawled through. But there was grass, tall, rank, thick, and tough. With boot-soles slipperier than polished steel on ice, the men slid and struggled through the tangle. It was in the dry season. Water was only a memory and a hope. Behind us was the line of trees that marked the stream we had crossed before breakfast. Ahead was another line that might indicate another stream, and was almost sure to conceal the trenches to which the insurgents in front of us were retreating.

Neither slippery grass nor fierce heat affected them; bare feet did not slide or stumble in the treacherous mat, broad hats shaded them from the fearful sun. They had no blanket rolls to wear them down, no heavy boots and leggings to drag back their

PACKERS LOADING UP.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

OVER THE ZAMBALES HILLS.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

THE CHIEF DATO AT ILIGAN.

feet, and for every gun there were three or four men. With maddening ease they would skip to a hill-top, fire a few rounds at our men sweltering after them, and run on to the next rise. All the time they were in plain sight. We could see their long line extending far beyond our flanks. We even saw them working around us on each side. To us it was the call for the final rush. Dizzy and sick with the heat, tongues swollen, throats aching with thirst, the men staggered up the last hill, down the slope, into the brush, over the insurgent position, and into a little creek that trickled through a gully.

It looks so simple, sounds so easy; and yet sometimes I think that none of us who were there can ever tell it so that you, who did not go through it, can understand. In the reports it was just a little skirmish, and of no special value. The enemy got away with small loss. None of our men was hit. Heat and exhaustion were responsible for our only casualties. Half an hour after it was over I went among the men lying in the shade as the check roll-call was made. The backs of their blouses were white with the salt crystallized out as the sweat dried. Canteen and haversack straps were coated with it. A first sergeant who had finished his check came and sat down beside me under a shack while we waited for the coffee to boil.

"Sabe hike?" he said, with a grin.

Then, as if we had not done enough, we spent the long, hot afternoon doing another twelve miles down the road, and did not camp until half an hour after sundown. The definition of "hike" was amplified. It was something more than mere marching. Endurance was added; endurance under great fatigue, terrible heat, and maddening thirst. But more of that was still to come.

MUD-LANDING IN SAN MIGUEL BAY.

I once read a moving description of thirst in the Soudan. The man who wrote it said that thirst such as he had endured there was a good thing, because it made so very good indeed the long, fizzy drinks that he got when the drouth was ended. Sometimes in the Philippines nothing fizzed but the blood, and you felt that bubbling and steaming within you.

In Cavité there is a long, high ridge with no streams and no wells. In peace times an irrigating ditch waters it, but war had dried it up. We marched before daybreak. By ten o'clock the sun had been

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

shining for a million years straight into the brain of every man in the column. The tall, heat-withered grass, the yellow, dead rice in the abandoned fields, the faded bamboos in the low stretches that once had been swales, joined with the myriads of heat devils in their fantastic dance. The still air seemed alive with them. The earth quivered. I saw a man throw out his hands and pitch forward on his face. Somebody tried to shift him into a comfortable position, but when he was lifted up he was dead. Men fell out by scores. Not even the excitement of the fight could keep them up. They lay where they fell, nor cared that the advance of the column would leave them in the hands of any enemy that might come back over the line of march. Those who camped at nightfall were scarcely more than half of all who started.

Once, early in the afternoon, we came to a pond of stagnant water. When they had brushed back the green scum that covered it, the men drank their fill of the yellow filth. The vision of typhoid fever through all their campaigning was hid behind the reality of their thirst.

But heat and thirst were not all that hiking taught besides fatigue. Fatigue belongs to marching wherever it is done, and heat and thirst are only what one expects in the tropics. Hunger also belongs to such work. To start out for five days with three days' rations in the haversacks or saddle pockets, and then to stay ten days is no unheard-of thing. Malted milk and chocolate are light diet for ten days of hard riding, but if put to it they will sustain life, and one is kept going by the thought of what he will have when the hike is over.

ENGINEERS BRIDGE-BUILDING.

Cold, though, has no business below latitude 12. It was strange to march in the night and have the dew so saturate your clothes that it seemed they must have been out in rain, although the myriad stars proclaimed the cloudless heavens. Then to lie down in the road to sleep, with morning but an hour or so away, and feel the night fog roll in and envelop you with a sheet so cold that your bones ache and your teeth

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

BAD LANDS, BELOW BAMBAN.

chatter—and no blanket will keep it out; then stupefied with sleep and weariness, and shaking with cold, to be ordered on and to go staggering down the road into the dreary dawn—that is a part of "hike" the tropics teach which has no business there.

Heat that burns the blood, hunger that makes men reckless of life itself, weariness that overcomes even the dread of butchery, cold that chills the heart—these are elements in the definition of "hike" that the dictionary has omitted. But that is not all. Hiking is sometimes something more than hardship. There is excitement enough about it occasionally, and fun, or what serves as well, for the men. Fear has no part in it, except perhaps for the occasional individual. Our men are accustomed to "greet the unseen with a cheer." They come around the corner on friend or foe equally unmoved. Suspense, anxiety, the uncertainty of waiting are for the officers; they bring no care to the men in the ranks.

There was a dash of cavalry across a province. It was to head off the retreat of the insurgents when they were driven out of their position above the cavalry line of march. Speed was everything; there was no time to delay for any interruption. At first the way was across high ground that gave a clear road. Then the trail struck through tangles of bamboo scrub and acacia bush, where advance even by column of twos was impossible. The pace was always a fast trot, and whenever the trail opened out enough to permit it, a full gallop. The people there had never seen the American horses, huge as mammoths beside their little ponies. The sight of the column sweeping across country at such a pace was terrifying to them, and they fled. Work and play were dropped on the instant; homes, friends, relatives, children were deserted. There was no thought but to run; no time to make provision for life in the fields. Even the fire-pots and pillows—the two first essentials of native comfort—were abandoned. Sheer panic possessed them all, for not a soul was disturbed by the troopers.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

Presently we came on the rear guard of the retreating insurgents. They threw away their rifles and jumped into the brush beside the trail. Here and there signs of distress appeared along the way. Bits of equipment had been dropped, blanket-rolls, cartridge-boxes, occasionally even a dearly prized rifle. Then a bull-cart with stores; the field telegraph records, then the instruments themselves. Then a small field-gun mounted on a clumsy wooden-wheeled carriage. Another bull-cart with ammunition. Another cart with two bulls hitched tandem, and piled high with boxes of the personal luggage of some one high in authority. Then two men with guns in their hands.

One of the troopers in the lead jumped from his horse and had the two rifles in an instant. The men were panting as if they had run a mile. Some one drew a revolver and pointed it at the younger of the two insurgents.

"Run," he shouted, "hike!"

Whether they understood the words or not, they knew what the command meant. They struck out down the trail at once with the troopers behind them at a swinging trot. For half a mile they kept it up, the men yelling and whooping and urging them to get along faster. Then the older one gave out. He threw up his hands and stopped beside the trail, apparently with mind made up to endure whatever torment might be inflicted. He got the surprise of his life. He had been caught with gun in hand, but there was no time to take pris-

ACROSS THE HILLS, BELOW BAMBAN.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

"JUST AT THE TOP OF THE GORGE WAS A LITTLE GROUP OF WOMEN AND CHILDREN, WHO HAD BEEN OVERTAKEN SO QUICKLY THAT THEY COULD NOT EVEN HIDE."

oners. A trooper pulled up in front of him and drew his revolver.

"Sabe hike?" he asked.

"Si, señor," replied the astonished insurgent.

"Well, hike, then!" roared the trooper, waving his revolver toward the brush at the side of the trail.

A BURNING HEMP "GODOWN" (WAREHOUSE) AT LEGASPI.

The insurgent took the hint and jumped into the tangle, as the column dashed on down the trail at top speed. Five minutes later the same thing happened to the other captive, and two insurgents at least understood "hike."

Later that same day the column came to a gorge which would do credit to the wildest part of our Western States. Years ago the Spaniards had built a bridge there, but long before the Americans had heard more of the Philippines than that hemp grew there, it had fallen into decay and ruin. The Filipinos had made a little trail down the steep sides, so narrow and precipitous that only one man or animal could take it at a time. It was a place for ten determined men to hold off an army. Half the descent on our side was in plain view of the top on the other. But there were evidences that there would be no opposition to our crossing. Strewn along the trail from top to bottom of the gorge, and up the other side, were the bags and bundles of the fleeing insurgents and their frightened families —rolls of bed matting, pillows, fire-pots, and bundles of bright-colored clothing, thrown

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

A GORGE TRAIL IN CAVITÉ.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

where they might fall, lest the terrible Americans catch the owners.

Just at the top of the gorge was a little group of women and children, who had been overtaken so quickly that they could not even hide in the thick undergrowth near the trail. They sat beside the trail wide-eyed and speechless with fear, and a bunch of troopers tried their best to reassure them and convince them that they were not to be harmed. Not until the column went on and they were left unmolested did they realize that their fear and flight had been causeless.

It took the column so long to get through the gorge that the insurgents had a chance to make a little stand beyond it. They chose a low spot of ground, where the trail dropped down through a wide depression, thickly grown with brush. The first shots at the point sent the troopers out of the saddle, for it was impossible to fight mounted in such a country, and the horse holders soon had the animals bunched in the lowest part of the swale, where the insurgent bullets whistled high overhead. Fifteen minutes later the men were mounted again, dashing on to meet the next obstruction, trench, gorge, fight, or whatever it might be.

There was a hike in the south that taught even old campaigners a new trick. It was one of the numerous boat landings, where the men were loaded into small boats and towed in until the keels grated on the beach, then jumped out and waded ashore. If it had to be done under fire it was awkward work, and usually very little time was lost at it. This particular landing was not opposed while it was going on, or it probably could not have been made. Two battalions were to go ashore at the same time. The naval men had carefully calculated the tide so as to be at the beach at high slack, but there was a little hitch somewhere, and when the first boat felt the keel drag there were fifty yards or more of what looked to be water between it and the firm ground. The man in the bow acted promptly. He stood up with all his kit gathered in his arms to keep it dry, and jumped overboard. The man went down to his shoulders in thin mud. Before he could say a word half a dozen men had followed, and all were floundering helpless in the slime. After that the men stripped in the boats before jumping over. Then they carried their kit ashore high out of harm's way. As the tide went out the stretch of mud to be waded through widened to more than two hundred yards, and it took all day to land the two battalions. Then, when they were all ashore and in their clothes again, the insurgents showed fight.

Before we had had actual experience in chasing the insurgents, it had been said so many times that the Americans could not get about fast enough over the rough and troublesome country to worry the Filipinos, that many of us believed it. But those who said so reckoned without knowledge of the ability, endurance, and determination of the American soldier. Up, down, or across gorges, through swamps and fields of mud or beaches of slime, through jungle and over mountains, not only infantry, but cavalry went with amazing speed, and when it was necessary they took the guns. When the insurgents retreated into Benguet the Spaniards said it was impossible for white men to get at them there to chase them out. When General Young's men did it the Spaniards said a miracle had been performed. But the Spaniards themselves did not "sabe hike."

TROOP I, FOURTH CAVALRY, WATERING IN LAGUNA DE BAY.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

LEGS.

THE STORY OF A COYOTE.

By Maximilian Foster.

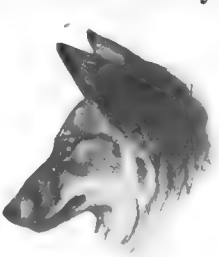
With Illustrations by Carl Rungius.

LEGS was a transplanted theory. Normally, he was a coyote born between blizzards somewhere west of the Little Missouri; afterwards he was an alien put down in Tennessee. He came east by way of Wichita, Kansas, a rowdy, fuzzy realism of meanness and greed, famine-bred, and with a voice several octaves higher than any harmony pleasing to the human ear. His fear and hatred of man and dog were inbred. In the beginning, when he was still a gummy-eyed cub, a cowboy dug him and his mother and four others of his kind from an earth at the bottom of a cut-bank. His first impression of life was death—the cowboy dragging him into the indecent light of day, where a pack of sheep-dogs was worrying the mangled body of the old she-coyote. Naturally, he had reason to fear and to hate. Later, he was thrown into a pen at a ranch, where he ran around and around till he was dizzy. Then he fell down and howled, a habit he never outgrew.

The idea that Legs embodied was this. On the plains they credit the coyote with the feet of a centipede and the gait of a limited express. Once started, he is a yellow streak across the landscape, dissolving into the distance like dust before a tornado. But in Tennessee there is a pack of hounds that is also a living symbol of haste, bred down to a perspective point of twenty couples through two centuries of dog. They are the pick of their kind, straight-limbed, full of heart and fire, and as true and remorseless on a scent as the inevitable working of fate. No red fox can lose them in the open, and when scent lies well they make short work of the lazy gray. So Legs came east with others of his kind to try them newly in their speed.

He was put down in the Harris country alone, still a cub and with an outrageous appetite out of all proportion to his size. A long box sunk into the side of a gully was his home, and as its outward end was barred with a grill, his first impressions of the new country were scant. But to his astonishment food was plenty. Once every day, a tanned-faced man with a black beard fed him beef bones such as he had never eaten before, and with the fulness of food in plenty his ribs filled out until he was like my lady's pug in the parlor. But even in prosperity his meanness could not wane. Whenever the man with a beard brought dinner, Legs snarled and showed his teeth, and at last, with the familiarity that breeds contempt, he helped himself, between bites at the beef, to the man's incautious thumb. Instantly peace departed. The bars were kicked away, and though he retreated snapping and snarling to the rear of the ready-made den, he was dragged forth, and with a parting kick turned out into the wide, wide world. Then a new life began for Legs.

In the Harris country there are wide reaches of open landscape seamed like a wind-chap with sharp-cut gullies. Big timber, black swamp, and thickets hem in these stretches, prairies in miniature. His first fleeting impression was that a kind Providence had returned him to the plains. But Legs had hardly stretched his eager limbs when he brought up against a neck of woods. Moreover, almost under his pads was the doorstep of a cabin, a good place to prospect about midnight, but nowise healthy in the full light of day. A dog barked, and he turned aside, slitting the atmosphere toward a hill-top, where he paused and looked back. Far down in the hollows he could see the black-



Digitized by Google

Original from UNIVERSITY OF MICHIGAN

bearded man loping along on a horse, and for a while he sat up on his hams and watched. Then the man disappeared, and he was alone.

Solitude stretched about him. The red orb of the westering sun sank toward the ridges, twilight was coming, and long shadows reached forward from the woods. Then that innate woe which is the heritage of the coyote seized upon him, and he lifted up his thin, keen nose toward the skies. "*Oh—oh-h-h-oo-ooo-hooo—yi-yi-hi!*" he wailed. "*Oh-oh-hh-yi-yi-hi!*" The woods threw back the sound, and a ready answer came from the farm-dog far across the rolling plain. Legs cocked up his ear and listened. Again the honest dog bayed at the shrill whisper in the evening wind, that seeking, tremulous note of misery which the coyote voices from his retreat in the arroyos and cañons of his native West. At the foe's reply Legs ruffled the hair upon his yellow neck, snarled till his teeth lay bare, and then licking his lips savagely, linked away down the slopes. But though he showed this bravery toward the unseen dog, he still kept an uneasy glance over his shoulder after he had slouched down into a vagabond walk.

Hunger oppressed him. Through the death of his mother he lacked early opportunities, and he had never before been cast upon the world to provide for himself both food and drink. So he howled anew, his querulous note wailing away into the key of the night-wind murmuring among the trees. Oh, such sorrow! He sat upon his hams and pointed out the stars with his nose, directing his complaint to the heavens, an eerie, blood-stilling burst of mad babbling. Once more he rose to all fours and slunk along, trying the wind in all quarters for some scent of an evening meal. True to his nature, he circled about, and at length struck upon his own track leading from the box where the wrathy man had bounced him forth with an emphatic gesture of his boot. Sneuff! He drew in a taint of meat—meat seven days old and strong! With a yap of delight he raced along his back track, and a moment later was munching a beef bone before the mouth of the old, familiar den.

The moon came out. He had finished the bone, mumbling over the flint-like knuckle until at length he reduced it to pulp. Then he wolfed down the splinters, and looked about for more. But there was only a little blood on the gully-sand, and after licking this regretfully with his sinuous tongue, he desisted and turned his mind to other woes. An hour before the only sorrow that the world seemed to hold in store was hunger. But now that the edge of appetite was blunted, he found room for other griefs. Oh, how solitary he felt! Once more he squatted on his hams, his forepaws planted before him, and yowled. But it did no good. The vast solitude took up and drowned his voice, and there was no answering cry of a fellow coyote. No doubt he wondered that there should be no mate anywhere in the world. For an hour he rasped his throat, and at length, with a last disconsolate tremolo, ceased and curled up in his den.

Morning came, and he lay at the mouth of the box, blinking at the light. It was not good, he knew, to keep such hours, but then he had an instinctive notion that the black-bearded man might return. But the day passed, and he was not disturbed. At nightfall he went forth again in search of food, but save for an indefinable scent of the blood in the gully-sand, he could find no suggestion of dinner. The best he could do was to sniff this ghost of the repast; and tortured by its hollow mockery, he loped to the nearest hilltop and yelped discords up and down the darkness. In his heart he hated the silence and strove to destroy it. But in the end, silence gained the upper hand; and, disgusted, he slunk off among the gullies.

A week passed, and famine touched him. He looked at his ribs reflectively, and wondered when they would burst through his matted hide. Within, his vitals seemed tied in a double knot that each day drew tighter. Then a kind Providence directed his steps toward a distant field, where a dead crow swung from a stick in the midst of the withered corn. Time and the wind and weather had fairly desiccated the scrawny bird, until it was like dust in his mouth. But he munched it ravenously, and with hope reviving, cast about through the fields.

Once more he had squatted on a hilltop, and was about to raise his song of woe, sorrowful like Ruth among the alien, when something stayed him. A cattle path stretched tortuously down the hill, and in the sharp moonlight he saw a shadowy creature tripping between the walls of grass. A rabbit! He remembered that long ago some one had thrown a live one into his pen at the ranch. All quivering, he crouched, and

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

"FAR DOWN IN THE HOLLOWS HE COULD SEE THE BLACK-BEARDED MAN LOPING ALONG ON A HORSE."

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

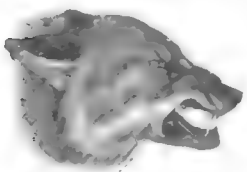
at the movement, the oncoming quarry, startled, bounced aside and with tremendous leaps sped away into the darkness. Before Legs had quite made up his mind what to do his dinner had fled, and, mad with anguish, he howled till the hills mocked him with ghastly echoes.

But if there was one rabbit, why not more? Hunger had sharpened his wits. He lolled down the slope, treading cautiously, and passing a fence, peered out into a cotton-field.

There was a rabbit!

Step by step Legs stole toward it. He saw poor Molly Cotton settle down, saw her big eyes grow bright with terror, fascinated at his approach. One step—two—three. He gave a great bounce and landed, snapping eagerly with his distended jaws, and—What misery disappointments hold in store! What sorrows anticipation brings! His teeth met in the ground, and away in the distance Bunny streaked, gone away with the speed of fear. Legs gazed with sorrowing heart about him. He snuffed at the rabbit's form, still warm from the heat of her fur, still redolent of the dinner that was not. The voice of Legs grew so strong in misery that a watch-dog heard, and came bouncing forth, his hair on end, and baying stridently. Then the coyote fled, and at the edge of the swamp bounced another rabbit, almost from under foot. With an eager yelp he forgot the dog and pursued. But the cotton-tail knew its work, and leaped, full gaited, into the thickness of a briar patch. A streamer of thorns raked Legs across the nose, another streaked him across the eye, and "*yip-ki-ki—yap*"—he halted, all fours planted forward to stop him. Then, after ruefully rubbing his nose, he slunk home to his den, hunger griping anew within him and disappointment adding to its vigor.

Experience teaches. Legs studied out the problem, and when night fell again, he was at the edge of the cotton-field, waiting. He lay crouched, lurking in the shadow, and poor Bunny came trotting down her accustomed run. Darkness clothed the tragedy.



Who heard the sharp squeal of anguish, the flurry among the leaves, and after that the scrunch of tender bone and the low growl and guzzling of the slayer? Only Legs. He slouched away afterward, grinning, and licking his bloody chops. Again and again a similar tragedy was repeated.

Time passed. Legs took to roaming. He learned the openings, and stretched away ten miles or more on a jaunt. He passed out of the Harris country, trafficked through the bottoms to Coles's Pond, or northwestward into the Sardis ranges. One night, he rollicked up from the lowlands, slunk through a deep gully, and rushed the bank. Terror! Right before him was a big house, all ablaze with lights, and a sudden babel of dog-music nearly deafened him. With his scrubby brush trailing low, he fled at full speed. But curiosity got the better of him. He sneaked back to the hill and looked. Men—yes—and dogs; many of them. At this point he moved out of the neighborhood.

One night in the Harris country Legs sat upon a hill, offering his usual obbligato to the skies, when a sudden answer near threw him out of his wits. "*Oo-oh-hh-yi-yi!*" With a complimentary howl, a sudden burst of piping music, he slipped down the hill, leaped a gully, and raced toward the voice that was cutting the night-silence into finger bits.

It was another coyote!

Sniff! Legs dropped to a dignified walk and approached. Ten feet away he dropped on his hams, and, with lolling tongue, gazed in apparent unconcern at this other stray. Also, the other affected unconcern.

Sniff! They approached. With the gentlemanly inclinations of the coyote, each showed its teeth. Then they trotted apart, performed a few bars of night-music, and returned. Each was disposed to hold pleasing discourse with the other, to talk over things, and to seek solace in this solitude. But of a sudden each discovered that the other was not a fair visitant—not of the weaker, influential sex—and with that each took hold. The stranger coyote possessed himself of Legs's ear, while Legs took a comfortable hold of the other's foreleg and scrunched. The fur flew, but the stranger, losing interest, withdrew his leg at the earliest opportunity and decamped. Minutes later he sat in the distance, mocking the victor's song of triumph.

Legs spent the night and the following day trying all the gullies. He hoped, no doubt, to find more congenial kin. But

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

"LEGS SANK HIS FANGS DEEP INTO THE NOSE OF THE HARRYING FOE."

though there was a she-coyote and her cubs working the ranges still farther at the west, he could find only her half-obliterated trail. Again and again she heard the voice of Legs saw-filing the night away, but mindful of her cubs and the homicidal appetite of a strange and hungry coyote, she purposely gave no answer. So once more Legs fared homeward across the big gullies—home again to the Harris range.

Life, so far, had been filled with leisure for Legs. But now he was to hustle for a living—not only for a living, but, indeed, for life itself. Impudent and sleek, fatly fed upon the unfortunate rabbits, he turned to other fare, and in an uncautious moment helped himself to a goose from a distant farm. He got away with the honker, but near paid for it with his life when the farmer saw him again. As Legs perched insolently upon a neighboring mound, reflecting what a sudden dash might accomplish among the geese in the barnyard, the farmer saw him and approached. Legs arose, insolent as ever, yawned, and kept his distance. He was trotting off in surly contempt when the man let go at him with a shotgun, and when the forward pellets struck, Legs performed some surprising movements, howled strenuously, and fled at full speed. Only a shot or so had touched him, and no doubt he outran the rest. Also he had learned the lesson that there are some things in the world that even the legs of a coyote cannot outpace.

A shrill baying disturbed his reflections. Legs loped to the nearest hilltop and looked back. He saw the farmhouse hound draw on, hot-paced, along the breast-high scent. For a moment he watched the lumbering chase, saw the hound range the hill and come rollicking toward the slope, crying eagerly as the scent grew warmer still. Amused? Legs felt his ruffled feelings fade as he marked his clumsy foe come paddling onward. Then he went down into the dry sand of a gully, and tied his trail in knots. After this he took a side leap, and with his tail airily on high, went elsewhere, while the baffled hound whimpered, at a loss.

Legs had the fun of his life whenever the farm-hound was abroad. Sometimes, when life hung lazily upon him, he slipped over to the farmhouse, and mocked the baying dog. He sat upon the hilltops waiting, and when the hound came forth, contemptuously showed himself. But the hound never learned. At full cry he gave chase to this phantom of speed, this yellow something that for a while played on before, to depart at last, a shadow flying across the landscape. Sometimes Legs ran around the hill, worked his patterns in a sand-gully, and then sat at the crest watching the baffled hound at work below. Once he led the hound a ten-mile chase across the chap-

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

marked land to a gully where he had found another box sunk into a bank. Here he backed down, and when the hound tried with gallant eagerness to snatch him forth, Legs sank his fangs deep into the nose of the harrying foe. When Legs chose to let go the nose was abruptly withdrawn, accompanied by remarks in a shrill treble, ending with pained *ki-yi's*. Yet this, the hour of triumph, was the beginning of the end.

The hound came home sore-footed and smeared with blood. "Barb wiah, shuah, sah!" said the farmer. Then, after reflection: "No, sah, not wiah, but that damned coyo-*tay!*" So formal complaint was lodged against Legs, and horse and hound went up against him.

Legs lay at the head of a gully, considering his digestion and the last Molly Cotton that had come up the trail. His yellow eyes, blinking through their narrow slits, were dull with sleep and the fulness of a square meal. Satisfaction filled him with gentle repose, and he yawned, stretching his jaws till the serried fangs stood outward, gleaming in relief against his scarlet tongue. "*Ye-ah!*" he yawned, stretching a hind leg. He rolled over anew, and was settling into his sandy bed when something awoke him with a start. He cocked one ear and listened. A note of snarling horn-music rang across the opening. It harked like the baying of a distant hound, and Legs arose. He wondered whether his old friend from the farm was on the trail anew, and a shade of annoyance ruffled up his brows. Again the horn sounded. He trotted to his favorite hilltop, and squatting upon his hams, peered into the valley below. A horseman appeared—another—then another—and more. Black dots moved among them—they were hounds; more than he had ever seen before. Their tails, upright, waved among the grasstops; they cast wide, working up and down the open and along all the edge of the distant swamp. A faint shout reached his ears—"Hi-ii-i! Kimrie, hi! Hike! Trailer—on! Bright Eyes, there!" He saw the tan-faced man with the black beard laying on the hounds, and with a sudden start Legs remembered that his rabbit-hunting had led him at dawn along that self-same swamp-edge.

A hound gave tongue, a nervous, whimpering tone, yet eager and ready. At the voice, Legs saw a chocolate-spotted hound, full-shouldered and big, with lop ears and sloping shoulders, drive apart from the pack, and fare about alone. He saw this hound range out into the open, up the wind, and heard again the cry—"Hike! Kimrie!"

Again a hound gave tongue. "Hi—on, Trailer—hunt him out!" Kimrie, off at one side, loped along abreast, ready to burst away in front if the pack should find, and content to let the others work. But the scent was cold, and the trailing slow. Legs, from his hilltop, saw the pack overrun his morning track, and grinned. But elation was short-lived. The pack cast back, and higher up the wind. "*Ki-yeow!*" bayed the impatient puppies, falling upon the indefinable scent. Farther out was Kimrie ranging, at work at last, but all on his own account. He pushed on. Below, Trailer was working out the knotted skein, the meandering of Legs in search of a dinner. "*Yow-yap!*" voiced the eager ones, then "*Kow—aaow-yi-yi—buh-ooo-oo-oooh—yi-yi-ki-iii-i!*" Kimrie had found, a breast-high scent hardly half an hour old.

The rest tolled in, all adding their voices to the turmoil. Legs from his hilltop saw the riders take in their fretting hunters, waiting for the last bunch to get away. Up the crest streamed the rabble of hounds, harked on by the man with the beard; and the woods gave back in babbling echoes the music of the pack as it went away at speed.

Legs concluded it was time to move. Whatever they were trailing might come along his way, and—Heavens, it was himself they were running! Over the crest of the hill came the chocolate-spotted hound, Kimrie, far in the lead. "*Ba-ow-ww-yi-yi!*" he yawped, as his eye fell upon Legs. It was no time for pleasantries. Legs somersaulted over the edge of the bank, struck the gully-bottom, and stretched himself. He fled along the hollow swifter than a turkey buzzard's shadow on a hillside, his ears flat back, and his hind feet ahead of his nose at every stride. No time now to double and twist in the sand. Slinking Kimrie had bounced him too close for that, or for any other tricks yet a while. Life, now, was in his speed; he must stretch country between him and the babbling pack before he could try precious moments for a baffling side-jump or for tangled tracks in the sand-gullies. So he stretched away to the north.

Far away he halted, turned, and cocked up an ear. A faint echo of the pack sounded

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

at the rear. His run up the gully sand had checked them a bit, but instinct told him that they had trailed him out anew, and even now were screaming in pursuit. His jaw wrinkled, showing all his fangs in contempt and hatred. But if he were to throw off this harrying crew, he must be at work. He slipped down, then, into the nearest gully, and danced a minuet through the sun-baked sands, and at the end, with a tall leap, jumped the bank and departed.

From the heights he looked down. He saw the pack, strung out into three big bunches, stream up the slope and turn in, at full cry, through the gully gap. High-voiced Kimrie and his followers charged along, overran the scent, dropped their voicing to a whimper, circled and fell all at fault. Legs sniffed disdainfully. He watched the worrying hounds cast about afresh, and presently the hunt came thundering toward the check. "Hike!—on, Kimrie—on, Trailer—hi-ii!—Bright Eyes—Jake!"

"LEGS PERFORMED SOME SURPRISING MOVEMENTS."

No use. Legs's plane geometry laid out upon the deadening sand had them all at fault. But presently he saw the pack drawn off, and cast again in a big circle. Its sphere drew perilously close to the watching coyote, and after a moment's reflection, he trotted on. But once more a chocolate-spotted hound—the inevitable Kimrie—appeared before him. The hound was ranging far; he had cut off the straight line that Legs had set toward the distant Sardis range, the straight line that every coyote takes when a hunt is on his trail, and Legs, to escape, was forced to circle wide. The move was almost fatal. The other hounds, drawing on, cut corners, and once he was nearly headed. No more circling after this, thought Legs, as he streaked away to the Whitney place, where there was sanctuary in a box across the railroad track. Gasping and blown, his heart burning in his breast like a live coal, he reached the box, leaped into its shelter, and had hardly turned when the hounds were baying fiercely at the opening.

They took up the hounds and went away. Legs's last view of them was the black-bearded man peering purple-faced through the door of his retreat. "Got off, eh? But what we'll do to you the next time, mind you, 'll be a plenty!" But Legs resolved that he'd have no such heart-burning again. He would see to that, he would.

A fortnight passed. Legs, undisturbed, took up life on the big hilly plain above the railroad. Once or twice they heard him singing down the moon, and made plans for the pack to bounce him out again. But with the change of the moon he turned back to the Harris country, where a dead cow lay in a gully and there were more rabbits in the runs. Here at last they found him again. From his coign of vantage he saw the hounds laid on; Kimrie, as usual, ranging up the wind. Disgraceful, he thought. Here he had just dined fitly upon the post-mortem cow, and was in no mood or condition to go streaking across the country. So he made a bolt for the nearest den-box, but, by ill chance, drew near it just as a bunch of stragglers came ripping up the gully. With his tail flying low, he turned and fled away, laying his chest to the ground, and fairly sobbing at every stride. Three miles of this, however, warmed him up; he ran more easily, and again, ahead of the chase, dashed into sanctuary, safe.

It was a good run—too good, in fact, for the health of Legs. Though he knew it not, he was a marked coyote. He made good sport, and that settled it. They ran him at every chance. Life became a continual torment. He went back to the Sardis country, was bounced anew, and streaking back toward the railroad, circled wide to reach the box. But Kimrie must have learned. When Legs galloped on in a big circle, Kimrie shot across on the chord, and

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

blocked the runway to the box. There was nothing left for Legs but to stream off anew toward the Harris range. So back he went, and half dead, made the box—his first home—just in the nick of time to save his hide from the leading bunch of hounds.

Then the dry weather set in, and Legs took heart again. The trailing was slow, and often the pack were at loss to work their noses on the brittle, dusty ground. So he sat on the hilltops watching, and his old contempt returned. Once he grew big with daring and showed himself. Wild with excitement, the leaders burst into cry, but their speed was no match for his preliminary spurt. He lost them easily in the first big gully, and then sat down hard by while they puzzled and whimpered over the trail. Presently he went rabbit hunting, quite convinced that he was supreme.

The weather changed. The top soil freshened with dampness, and the old trails and tracks in the sand were washed to a level. Once more Legs heard the snarling of the horn, the shrill cries of the hunt, the dog-music, and the thudding of hoofs as the riders came faring along. He arose and lunged sullenly to the hill-crest. The pack was streaming wide. He saw the old hounds working on ahead, the puppies babbling now and then at their heels. But Kimrie—where was Kimrie? Look there—up along the hill! See that sharp tail carried high, that quick form working through the grass. There was Kimrie, and the coyote bounced forth with the self-working hound almost upon him.

Away they went, short shift for Legs. Far away—a good ten miles—was the Whitney place, for the pack was already between him and his old-time home, the box in the gully bank. It was afternoon. Legs had slept off his last heavy meal, and was lean and fresh. He leaped to the nearest gully, raced up the sand, and jumped the bank. But the top surface broke beneath his eager pads, leaving a damp, hot trail behind. Instinctively he knew it, and a fierce dread came into his heart. Stretching out into the open, he fled away, the whole pack bunched and close upon his heels. Away—away toward the Sardis ranges—to the deep gullies beyond—to the hard ground and the sheep-lands where he might baffle pursuit. His perils oppressed him. He shot away, forgetting to save his strength. The crying voices hurried in his train, and there ahead—desperation!—a patch of heavy timber blocked him. He turned in full view. There was no other chance—his instinctive choice of open country forced him. The hounds, in full sight, cut corners. He strained his muscles, flying at dizzy speed across pasture and heavy plough. Beyond was his sanctuary, but the pack was creeping up. Two centuries of blood and breeding against a pariah of countless starveling generations. The strain told. Over his shoulder he saw them coming, and in the rear the tan-faced man of the black beard urging onward a wide-gaited thoroughbred. Others plied at his heels. Terror was in the heart of Legs—Legs, the thief, pariah, alien. Oh, for a sanctuary! He swung circling toward the box beside the railroad, and—there was Kimrie backed up by the black hound Trailer. Wisely they had cut the corner; again he was headed off. There was no other way. He must lead the mad chase far away. But, perhaps— His memory recalled the haunts in Sardis many miles beyond. Speed now was his only hope. The climb to the hilltop was stiff, but it left the heavy hounds behind. He took fresh hope, but short-lived indeed. They were on him anew. No use. He must turn and fight, and against what odds!

He leaped into the nearest gully, looking for a niche to back down so that he might fight them off in front. He ran up and down, seeking. But the blank walls of sand faced him on every side. A bunch of hounds sailed into view, and headlong plunged into the gulch. Backing into a bush, his paws before him, Legs snapped snarling at the foremost.

"*Bow-ow-ow!*" roared a heavy bass of hound-music. Legs stood there at bay, his dripping fangs shown in menace to the leaders. They fell back an instant; then over the bank raced Kimrie and at his flank was black Trailer. The couple leaped upon him. He set back, and one had him by the throat. Then the cloud of hounds flung themselves upon the fight. He struck right and left with his fangs, the teeth clicking as they met in flesh and fur. Trailer he bit through the face, and the hound snatched off, only to fall on far more savagely, and with a wide leap Kimrie launched himself on the coyote's back, silent and dreadful. Legs bit him in the flank, but the hound gave no heed. He sunk his teeth

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

"OVER THE BANK RACED KIMRIE. . . . THEN THE CLOUD OF HOUNDS FLUNG THEMSELVES UPON THE FIGHT."

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

to the coyote's spine, there was a sharp scrunch, and the pariah and thief was done. He fell back, his haunches trailing useless, and that was the end. Though he still bit and fought about, the crushing pack fell upon him. Once he howled.

Over the hill came the horsemen, thundering down the slope. Legs, in the midst of the baying hounds, was fighting—but weakly—to the last. With a last show of strength, he turned upon a puppy, and bit it on the ear. Then the pack buried him under, and he struck no more.

Thus ends the story of Legs.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

THE SULTAN AS HE APPEARS TO-DAY. HITHERTO HE HAS BEEN REPRESENTED TO EUROPE ONLY AS THE PRINCE ABDUL HAMID, YOUNGER BY TWENTY-FIVE YEARS.

THE REAL ABDUL HAMID.

A CHARACTER SKETCH OF THE MYSTERIOUS AND TERRIBLE SULTAN OF TURKEY.

By Eugene P. Lyle, Jr.

Illustrated from Photographs.

ALL is mystery that concerns the grim recluse of the Yildiz, but mystery, though, is enchantment itself. The tense popular curiosity must value very high, then, any new light cast on the sinister despot in his fortress-palace. Into Europe there have come recently certain Ottoman subjects, and these subjects have been inspired by the fresher, freer air about them to tell what they know; and so the world learns with a start that there exists at this moment, out of jail, a man whose like the classics and history together can scarcely reproduce even should they submit a psychological composite of their very choicest specimens. Such a composite would require the cold, pitiless ambition of Richard III., the consummate craft of Richelieu with the Italian finesse and falsity of Machiavelli, the blood-thirstiness of a mad Caligula, the ruthlessness of Genghis Khan, the refinement in torturing of Torquemada, the craven superstition of Macbeth, the parsimony of Mazarin, the awful fear of the Hereafter of Louis XI., and, more striking than any of these, a cowardice without parallel in human records. And even then we would have only the merest outline of the Sultan of Turkey, as revealed to us in the new portrait from these Ottoman subjects who tell what they know.

"*C'est un monstre,*" said one of them, almost with a shudder, with a hiss certainly. And there, in a word, you have this pen-picture of Abdul Hamid.

The Young Turks, it should be understood, are independent thinkers. That is why they are not in Turkey. Another definition is this: they are those Ottoman subjects abroad who do not accept the sixty dollars a month which it is declared that the Sultan pays for the services of a closed mouth. In the London *Times* and the Paris *Matin* a recent despatch from Constantinople stated that the Porte is now seeking an extradition treaty under which

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

members of the Young Turk party may be brought back. Sometimes a Young Turk accepts pardon and returns of his own free will. And just here comes in the Tale of the Bad Coffee. It was retold last April in a French court of justice. The Turkish ambassador accused two of his compatriots, Fuad and Kemal, of abuse of confidence. Kemal had founded a newspaper in Geneva, which, as the organ of the Young Turks, was violently opposed to the Sultan's administration. The paper was, moreover, accurately informed of state affairs and scandals. Fuad was the source of the information, for at that time he was secretary of the Minister of Foreign Affairs at Constantinople. It was an indelicacy on Fuad's part, but nevertheless the paper's accusations thereby became much too true. Both young men later came to Paris. The ambassador entertained them, and started them back home with the imperial pardon. He paid their fare and expenses, 350 francs each. But they did not go back, and in court they explained why. The reason was a mysterious note which they obtained and opened. It was signed by the ambassador, and addressed to the secretary-general of the imperial palace at Constantinople, informing him that he had sent therewith the two Young Turks demanded. "I know too well what that means," said Kemal. "It is the bad coffee served hot when you land. I have seen and know of several thousand Young Turks who were pardoned, then poisoned on their arrival." The two prisoners were released, as they had not touched the money consideration of their return home.

Another of these refugees, who was for three years even in the *entourage* of the Sultan, has written a book. His work has created a sensation in Europe, not only because of the startling picture drawn therein of Abdul Hamid, but also because of the author's exceptional opportunities for being correctly informed. His name is A. Adossides, though he is best known under his pen-name of Georges Dorys. Though an Ottoman subject, he is of pure Greek blood. His father was Constantine Adossides Pasha, prince of Samos, governor-general of Crete. On account of the unpleasantness of tyranny, young Dorys resigned his government post and began corresponding for the London *Chronicle* and other European journals. Naturally things grew more unpleasant yet, and finally he escaped from Constantinople disguised as a French officer. Since then he has followed journalism in Paris. His favorite theme is the Sultan. For him the despot is a piquantly elusive study of psychological contradictions. It is fascination based on mystery and on hate, for as a loyal Ottoman Dorys hates the Sultan for making Turkey a possible easy prey for Russia.

Dorys describes Abdul Hamid as he looks to-day, old, feeble, shrivelled, with a face that shows all the workings of evil cunning and abject terror. He is but fifty-nine years old, but the changes since his ascension to the throne twenty-five years ago are only partly due to time. His jaws are heavy to brutality. The cheek bones bulge as from a death's-head. An ugly wiry beard is mottled from dark brown to a rusty red, due to shiftless dyeing. His emaciated pallor is heightened by the ungainly fez that covers his baldness. The nose is that of a vulture. The upper lip, hidden under his mustache, is refined and cruel; the lower, thick and sensual. The eyes, deep in their sockets and half-veiled by shaggy brows, are lighted by a "shifting flame," and strike the beholder with uneasiness, like the eyes of a madman. The Sultan is distressingly thin. He lives by his nerves alone, and this in great part explains the many contradictions in his character. The family strain of insanity taints his blood. He is a nervous monomaniac, of the persecuted-persecutor type. His mania is the fear of death. All his powers of mind are devoted to self-preservation, and they are by now monstrously developed to the choking out of other faculties. He detects peril by instinct, though his diseased imagination swells it out of all proportion. He can judge and use men, and he is an adept manipulator of all the ruses of intrigue and diplomacy.

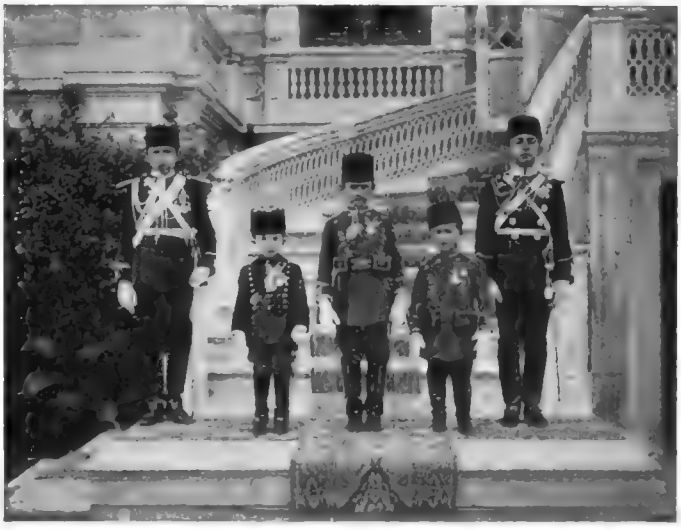
By guile, in fact, he mounted to the throne. The story, as told by his new biographer, is largely a parallel of the usurpation of Richard III. An elder brother, the Sultan Mourad, stood in his way. Abdul nursed a prophecy that he would one day reign. He is a votary of the black art, and it is declared that he tried incantations on a wax image of Mourad, besides the more practical means of seeking to corrupt his physicians. The Duke of Buckingham in this plot of ambition was a sincere though deluded patriot, the Pasha Midhat. Midhat appreciated that Mourad was incapable of

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

government, and favored his deposition. He and other dignitaries thought the prince Abdul a generous liberal, besides a saintly character, to judge from his pity and solicitude for his brother, and his modest reticence about doing the reigning himself. Again we are reminded of Shakespeare's Richard, this time between two priests when the Lord Mayor comes to beseech him to accept the crown. But the kingmaker Midhat, like Warwick, soon regretted his ardor. His body was delivered at the Yildiz, labelled "Works of Art—Japanese Ivory." His death may have been due largely to a paper that he held, but which he sent to London for safe keeping. In this paper the prince Abdul engaged himself to give back the throne in case Mourad recovered. Mourad is said to have recovered soon after, but as Midhat was dead, Abdul has not been reminded of his agreement.

The usurpation was carried to the extreme. Even the crowning celebrations prepared and waiting for Mourad's recovery were used up on Abdul. The new monarch then locked his brother up in the Tcheragan Palace, and has kept him there ever since. He charged Mourad with embezzling state treasure, and thus blackened his honor. He had his name struck from the list of sultans, and no history in Turkey mentions Mourad V. He even wanted to marry the captive's daughter to a profligate favorite. He proposed to his council of ministers that Mourad should be executed, since the law did not allow of two sultans existing at the same time. This last was prevented only by the daring opposition of two members of the council. Abdul did really grant the promised constitution, but his cunning soon found a way to be rid of it. He craftily sowed discord between the new-born parliament and his ministers. Then his ministers in disgust implored him not to have a parliament any more, and Abdul reluctantly acceded in the interests of tranquillity. Becoming thus absolute, he fortified himself in the Yildiz, and settled down to being a despot in earnest.

Abdul Hamid's favorite book is "The Prince," by Machiavelli. It is his handmanual of statecraft. He has proved a past master of the sly Italian school, adding to it his own insidious Oriental genius. By ruse he climbed to power, and by it since then he has kept himself alive and unhung. He sometimes surrenders to force, but only to win back the advantage later. A profound calculator, he is never at the end of his expedients. He ever evolves some new jugglery to dodge a peril, and his escapes seem like miracles. The imperial jockey knows how to set traps, too, and his enemies seldom fail to drop in. A vengeance long fattened becomes a voluptuous mental feast. The life of a troublesome subject counts for nothing, and the flow of blood is a soothing bath for his quivering nerves. Policy or fear of revenge may prompt repentance. He takes care to appear gentle and good, so that people will believe in his reserve "treasures of tenderness." He seeks sympathy, and often poses as the victim of malice and ingratitude, and this he can do with a convincing sincerity. He makes his coarse voice soft and caressing, and wins hearts by his seductive charm. He combines all the telling points of the Oriental and European arts of politeness. He is especially affable to foreigners, who are forever after filled with extravagant



PRINCE ABDURRAHIM, THE YOUNGEST SON OF THE SULTAN, AND SUITE.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

praise of the gracious potentate. "Sunset" Cox, one-time ambassador to the Sublime Porte, seems in his book to have succumbed to the same hypnotic influence. Abdul hopes by these flattering courtesies to counteract the flings of the foreign press. He can be equally "lovely" to his own subjects, when occasion requires. He asks after a sick functionary with quite a motherly solicitation. And to win over some powerful Turk or possible tool, he inaugurates a patient campaign of honors, offices, etc. His agents are often beautiful women. By his exhaustless wiles he has debauched much of the integrity of his empire. He has sought to corrupt foreign newspapers, politicians, and diplomats. His vanity must be enormous, for he is even charged with an attempt to buy the London *Times*, and with estimating Bismarck's price at £1,000,000 Turkish (about $4,500,000). His Armenian massacre expense account includes 640 decorations and £235,000 Turkish (about $1,050,000).

The guile of Abdul Hamid can sink to petty deceits. Dorys related to the writer that a chamberlain came to him one day, pleaded poverty, and begged the gift of a house. Abdul bade him go ahead and pick out one that suited him. The forced sale of the property, virtually confiscation, would follow in the ordinary routine of such affairs. But it so happened that the chamberlain chose a residence that had fallen to the crown owing to lack of heirs. Abdul said he would think about it. The chamberlain later persisted, and this time the Sultan expressed his deepest regrets, but a lady of his harem had taken a fancy to that very same house. It was very awkward, but—"Here, wait a moment, and I will prove it to you." Saying which the Sultan stepped behind a screen, opened a door, and called to some one within. A woman's voice answered. Then Abdul spoke. "Here is my chamberlain here, who insists on having that house you know of. Now, what am I—" The pouting tones of the lady interrupted him. The horrid chamberlain could do without, etc. Now, the chamberlain was a curious chamberlain, and he had peeped behind the screen. There was no one there besides the Sultan, who was carrying on the conversation with himself.

Abdul Hamid has been called an anachronism of history, and such he is. The civilization of to-day may well be amazed. He is not only as absolute a tyrant as any caliph of the dark ages, but his power races unchecked like a scourge wherever in his dominions his insane ferocity might drive. Yet this incontinent luxury of crime has not been punished. In truth, his is a reign that has somehow slipped out of the night of the past into the self-complacent high noon of the present. The consummate artfulness with which he has kept off avenging nations by pitting them against one another—that is the most colossal monument to his guile. His cruelty has two phases, the brutal thirst for blood in flowing streams, and, second, the refined delight in novelties of torture and mysterious deaths. His massacres are clotted blotches on the last bright decade of the nineteenth century. He has massacred generally and impartially and pretty thoroughly. In the Armenian shambles of 1894–96, 300,000 human beings were hanged, drawn, and quartered, and burned, and a carefully organized famine faced the survivors. A mere incident was the burning of 3,000 women and children and old men in the cathedral of Orfa. There was back of all this a methodic plan for the extermination of the Armenian race. When the Armenians made a demonstration in 1895, Abdul warned their patriarch in these words: "Perhaps they are trying to provoke European intervention? Very well; but remember this, before the foreign fleets can enter the Straits, the waves of the Bosphorus will be reddened by the blood of all the Armenians." As to his subjects of his own faith, his feeling is only of contempt. They are "acorns, fit to be strung up to oaks."

The Sultan can be cruel in gayety and in anger. When fury takes him, he gives way to ungovernable violence. Dorys tells how he throws ink-stands at his secretaries or fires revolvers. At such times he is the ruffianly murderer. But the other side of his cruelty is more classical and Oriental. It is touched by the artistic and worked out dramatically. It is diabolical, but gentlemanly. He indulges in the luxury of private dungeons and inquisition chambers, as, for instance, the Malta and Tchadir kiosks of the Yildiz. Here those persons accused by his spies are questioned. His Majesty himself is within hearing, though invisible. The tortures are often of the most odious ingenuity. The jester Kiathané Imamy exercised his sense of humor in an invention

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

which gradually presses on the sensitive portions of the body, a valued discovery, for it causes the most excruciating pain without the inconvenience of killing. It sometimes does kill, but the guarantee does not cover that. Keeping a victim from sleeping is also popular in the Sultan's personal tribunals.

Good, honest executions are not frequent in the Yildiz. Abdul prefers them done outside on account of the muss. They are seldom commanded formally. A significant hint suffices. A certain seal on a decree of exile means death *en route*. Most of the executions that do take place in the palace are private family affairs—women or eunuchs. Abdul is not a gallant himself, but he is terribly jealous of that honor of his distributed among dozens of simple, doll-like houris. He strikes on faintest suspicion, and the victims of these dark dramas are uncounted. Harem etiquette forbids inquiries about a woman who has disappeared. Strangulation, the Bosphorus—the old whispered story is again repeated. Even Abdul's own eldest son is kept a prisoner for a youthful indiscretion.

Between the two phases of his wrath a doomed man seldom escapes. His patience for vengeance is infinite, and he would barter a province for an enemy. Dorys is authority for the following bit of inside history. It concerns Midhat Pasha, the reformer and kingmaker. Two months after granting it, Abdul exiled Midhat, in order to revoke the constitution. Midhat escaped to Europe, whereupon the Sultan became uneasy. He persuaded Midhat to come back to Constantinople, made him governor-general of Syria, then transferred him to Smyrna. Next he prepared his ruin, under the cloak of charging him with the murder of the Sultan Abdul Aziz. Abdul Aziz was Abdul Hamid's uncle and the predecessor of Mourad. Midhat had had him dethroned because he had gone insane, as with Mourad later. Shortly after his deposition Abdul Aziz committed suicide. Abdul Hamid, however, now chose that he had been murdered. But Midhat heard of the plot, and took refuge under the French flag before he could be arrested. The French surrendered him, and in return received the province of Tunis. Poor old Midhat was convicted on the evidence of a woman's dream, exiled, then quietly assassinated.

Though Abdul Hamid outdoes most personages of history either in cunning or cruelty, yet any drama with him in the principal *rôle* would not be a drama of either of these. It would be a drama of cowardice, and the most fearful of dramas at that. Terror of man, of disease, of the calamities of nature, of aught spelling "death," is the trait in the Sultan's character that dominates all the others. The Young Turks are to be credited with laying bare this weakness of their prince, for otherwise he might pass for a brave man. For instance, after the earthquake at Constantinople recently, he was described as a paragon of *sang froid*. However, the people of Constantinople smile skeptically, for they know that at the moment he was excessively pale, and that he clung in panic to his throne. Afterwards, as soon as he learned the cause of the shock, he reconstructed himself into an intrepid hero. Again, when Ali Souavi tried to rescue Mourad from prison, and at the moment when Souavi's followers were being cut down by the imperial troops, Abdul was found in the park of Yildiz over a mile away, running like wild and crying out that assassins were pursuing him. Hundreds of such instances are related by the Young Turks and seconded by the press despatches.

One day M. Vámbéry, the Hungarian Orientalist, was received informally at the palace. This was not an unusual thing, as Professor Vámbéry had been Abdul's tutor, and since then almost an intimate. Quite naturally, then, the Sultan turned to the one guard in the apartment and ordered him to retire. The guard took a step backwards and halted as rigid as before. Abdul repeated the order, same result. Once more he had to command, and this time the man obeyed.

Professor Vámbéry was astonished at this evidence of absolute power in the Sultan's private household. Abdul smiled, and explained. It happened often that he wished to show faith in a guest, that is, only apparently. He would order the guard to retire, the guard would remain, and Abdul would go on with the conversation, seemingly under the impression that the guard had really gone. Only the third command was to be taken literally.

When the Sultan had finished this little confidence, he invited the professor to sit opposite him at a little table and have some tea. Now the Sultan does not take sugar,

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

so he forgot to offer his visitor any. The bowl was at the Sultan's elbow, but the professor was not used to asking monarchs to wait on him. Still he could not drink the tea as it was, and he leaned over the table to reach for the sugar. All in a flash the Sultan was on his feet, his hand at his pocket, his face pallid. The gesture of the harmless old savant looked to him like assassination.

Once when Dorys's father, the Prince of Samos, was retiring from an audience, he stumbled in his backward steps and fell. In a moment the Sultan had pressed a spring behind him. The wall opened and he vanished within, safe from the suspected attack. Abrupt gestures in his presence often cost dear. Several victims are mentioned, one a gardener in the royal park whom Abdul shot dead for rising too quickly to an attitude of respect. Another time he found the child of a palace domestic playing with his mislaid revolver, and he had her tortured in the hope of revealing a plot.

His magnificent Yildiz is a monument to fear. It is assassin proof, bomb proof, earthquake proof, fireproof, microbe proof. One wonders how Death will manage to come up with this well-fortified man. Architects and engineers are building and rebuilding incessantly. Some new secret retreat is always under way. The entire domain is surrounded by an immense wall, thirty feet high, and the choicest troops of the empire stand guard around it. An inner wall twelve feet thick with gates of iron encloses the private residence itself. The walls of his own dwelling are filled with armor plate, in case of projectiles. It is said that a mysterious passage connects with ten secret bed chambers, forming an intricate labyrinth. No one but his body attendant knows where the Sultan may sleep during any particular night. He has electric lights and telephones in his own apartments, but forbids them in Constantinople. Telephones might prove handy for conspirators, and he believes that a dynamite cartridge could be sent over a wire into the palace. He fears electric explosions, so Constantinople still gets along with gaslight. He hates the word dynamo, because it sounds like dynamite. Balloons are tabooed, lest one should pause over him long enough to drop a chunk of explosive. As to the regal luxury of the Yildiz, that is a matter of course. The domain is a small world in itself. Five thousand people live within the outer wall, not counting a small army of workmen and the 7,000 imperial guardsmen. There are shops, factories, arsenals, stables, a library, museum, picture gallery, theatre, and even a menagerie. The monarch loves trees, but he keeps their branches well lopped off, so that he can see to the farthermost corner of his park.

Abdul Hamid's programme for the day is a journal of cowardice. He rises by five o'clock, for he limits to the utmost his lapse into the helplessness of sleep. He takes a cold bath—vapor baths and massage might reduce his poor skeleton yet more—and after the bath comes coffee and cigarettes, both made in his presence and both kept up all day long. He is a very busy man, but his affairs are mostly spies' reports and translations of foreign press comments. The real business of state may drag for months and years. In solitary splendor he eats gingerly of his dinner. Imposing pages bring on the viands in solemn procession. The plates are under seal, just as they were sent from the kitchen. The kitchen, by the way, is an armored box with iron shutters. The august diner often asks an attendant to taste this or that, or uses the same precaution on the dogs and cats around him. He suffers from stomach troubles, so in a few minutes the repast is finished.

Abdul retires late. From behind a screen the grand master of the wardrobe reads to him fearful tales of blood and murder. His sleep is unquiet and nervous. He wakes up frequently and calls aloud for company. Or he mounts to the roof and scans the neighborhood with a glass. If he has a bad dream, a sorcerer must come to interpret it for him. He is afraid of the dark, and his residence is always as light as day. Often an orchestra plays till late to break the dread silence of night, and his guards must tramp incessantly, so that he can hear the footfalls. In times of trouble he often goes forty-eight hours without sleep. Then follows a terrible nervous crisis. An instance was at the time of the escape of his brother-in-law, Damad-Mahoud, to Europe. His rage over the attention drawn on him during that affair knew no bounds.

Abdul, though, has never been "officially" sick. He is his own doctor, for he cannot trust a physician to examine him. Here may be noted a remarkable contradiction in

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

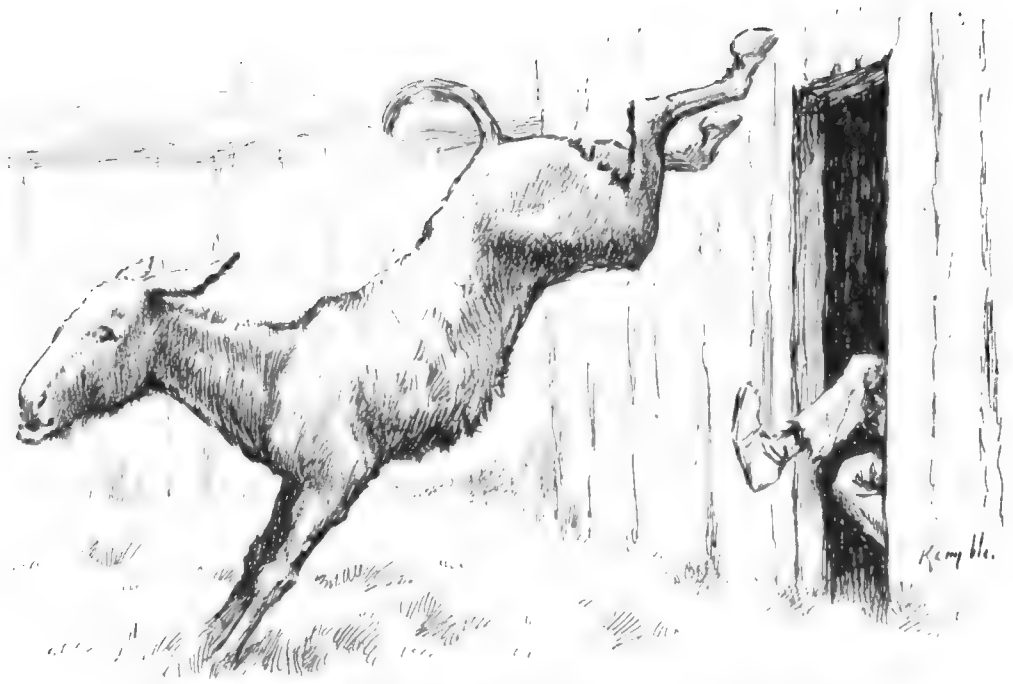
his character, for though inspired by fear, it is on the side of strength. His mother, a Circassian dancing girl, died of consumption. The Sultan Abdul Medjid, quite probably, his father, was victim to the same disease. By a marvel Abdul Hamid has not also succumbed. But he has fought down and conquered his natural passions, and his life has been most temperate for an Eastern potentate. His cowardice has even brought one benefit to his people. Abdul trembles under the prophecy that he will die of a disease from without, and he has become a microphobe. Therefore the Turkish quarantine is a model of severity. In his fear of contagion, he will not touch a document till it has passed through a disinfecting stove. As he cannot make his clothes himself, he walks before his tailor, who must measure him by eye. He has two pockets for pistols, and would like to forbid the same to his subjects. At any rate, it is unwise to reach for a pocket if he is present. Sadyk Pasha, grand vizier, was exiled after doing that very thing, though the unfortunate statesman was simply fumbling for a state paper.

The Sultan's religion is a blending of doubt and superstition. He is not a believer, and therefore not pious, but he is foolishly credulous. It is a dark, craven religion, all fear and terror. He is not a fatalist, and in the silly confidence in his own wits he seeks to outwit destiny. Thoughts of the Hereafter and its torments rack him with agony. Then he prays in sudden fervor, and it is said that he makes secret vows and flogs himself. But he soon gets discouraged and turns skeptic again. He is shrewd enough, however, to be a devout chief of the Faithful, and he makes use of the piety of the Mussulmans. He encourages ignorant fanaticism. His censorship extends to the liberal tendencies of even the Koran itself. He banished one scholar who dared interpret the sacred book from this standpoint. He has no love for Christianity, though he simulates respect for all creeds. But he hates and distrusts most of all an Islam proselyte.

In the above picture of the Sultan, drawn from the evidence of the Young Turks, including the Greek Adossides and his book, "Abdul Hamid Intime," there do not appear always the proofs incontrovertible. Nor can they be expected. The story stands, as convincing as any history written of a tyrant recluse. The Greek presents a remarkably consistent case, considering the many contradictions in Abdul's character. The Sultan is living yet, and he knows how black he is painted. He can disprove the libels, if such they are. But his defence is in itself a condemnation—the pardon of the defamer—the defamer's disappearance or sudden illness on arriving at Constantinople. There is no other ruler living to-day who suffers universal vilification from his subjects abroad. There must be something back of such unanimity of slander. And, again, the statements of the Young Turks fit in surprisingly well with what the world already knows of Abdul Hamid. But, after all, what does the world know? The only time the Sultan gives himself a chance to be known of men is when, once a year, he goes to church, a ceremony forced on him. There is a vision of a carriage flying swiftly through the streets between files of soldiers. The world, given this one fleeting glimpse, would most likely construct just such a man as the Abdul Hamid pictured above.

ONE OF THE SULTAN'S EUNUCHS.

Digitized by Google Original from UNIVERSITY OF MICHIGAN



"'EF YOU DON' B'LEEVE DAT ER MULE KIN REASON, . . . JEST 'BUSE ONE!'"

OLE MISS AN' DE YANKEE.

By Mrs. W. A. Leland.

A song floated over the corn-fields, so weird and plaintive that only a darky could sing it. On and on it flowed, soft and low, near and far, till birds joined in the chorus, till honey-bees carried the news to the blossoms, till the cattle grew drowsy and slumbered: a song of "dat ole-time 'ligion," so old that Paul and Silas felt it, that was old when hills and valleys were young. A wonderful, soul-stirring song!

And so I found Aunt Betsy, hoeing corn and singing. She was an "ole-time" darky, of a type almost extinct, whose thoughts dwelt on the past, to the happy days of which she turned with as much humility as the great yellow flowers about her cabin gave to the setting sun. And it must be said, in justice to her, that she was not a tiresome talker, and that whatever seems monotonous in her conversation as given here is due to its reproduction. There was something in her manner to a stranger that lifted her above surroundings—a something that whispered of old-time aristocracy and slavery-time—something that said, as so many words, that Aunt Betsy had had an "Ole Miss." To me it seems still natural—the idea I formed that "Ole Miss" was dead, for a great white house stood near, closed, silent, around which flowers were growing in tangled profusion, and into every window of which the creeping ivy sought entrance. Morbid reflections were vain, however, for while the war had played havoc with Ole Miss's wealth, she was yet hale and hearty, and, in Aunt Betsy's opinion, the central figure of a charmed circle in a far-off Northern city—Ole Miss, her daughter, and her son-in-law. "An' er noble Yankee he is, tooby sho!"

There were presents innumerable to be admired—warm flannels for winter wear, and gay-colored muslins for summer, each stitch in itself a proof that Ole Miss had mastered a darky's taste; but the crowning glory, literally speaking, was a hat, a broad-

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

brimmed leghorn hat, surmounted with bows of crimson ribbon and red and yellow poppies. I stared at it in speechless wonder, which was doubtless mistaken for admiration, while Aunt Betsy gave me a curtailed account of the only time in her life that she ever attempted to wear a hat. Sun-bonnets, white as snow, and as stiff as starch could make them, were the regulation headdresses of the "ole-time" colored women.

"I hear dey wuz out in droves dat Sunday, an' dat de whole front bench wuz deserved fur me an' de hat. An', ser, ef dem niggers knowed how nigh I come ter gwine —dat I had on gloves 'long wid de hat, an' de switch Ole Miss wo' ter her cousin's weddin', dey ai' no tellin' how diserpinted dey'd feel. 'Twa' diserpintment wid me dough, 'twuz insult! Ter dis day I ai' got de heart ter look at dis hat. 'Twuz ill-mannered, dat's whut 'twuz, ill-bred! Caze when he driv roun' an' seed me settin' here ready, he could er knowed how foolish I felt, widout any 'miration frum him. But laff? An' thow his heels 'ginst de dash-bode? 'Twuz dat scan'lous de mule wheeled roun' an' driv right back ter de lot—nigger'n all.

"Ef you don' b'leeve dat er mule kin reason," Aunt Betsy continued, as she replaced the hat in a copious band-box, "jest 'buse one! Treat um right, an' dey don' say nuthin', but aggervate um, an' dey gwine ondermine yer sho: like some humans is diffunt frum some. De Yankee gentleman now, he furgive Ole Miss on de instunt, but er mule? 'twould er toated dat malice ter de bone-yard. Dat's de way I looks at it, an' I sets here studyin' 'bout all de heartache, all de war'in an' one thing ernuther, an' 'bout Ole Miss turnin' mother'n-law ter er Yankee, tell I feel confused in de sperrit —tell de intestines o' de brain gits addle.

"I looks way back ter dat day when de Yankees past thu, when Miss wuz so vigrus 'bout de po-trits, an' ef Marse 'Lija hisself had prophesied dat outer all dat confusion dey would come fo'th coteship an' er mother'n-law—but den, hits er turble ill-win' dat don' blow *some* good *some* whar. I ever does b'leeve in dat, an' hit all come ter pass thu dem sojers' develment. Dat's whut de sperrit tells me, becaze, bein' de head one o' dem lef' behin', an' I wuz watchin' thu de crack o' de door. 'Twuz de fus time I ever wuz shame o' my Miss—caze dey never wuz er mo' high-steppin' lady—an' in dat cramp place I dissolve dis thing in my min'; dat Yankee er no, I would'n treat er *varmint* like dat. Why, Miss acted like de man wuz er reptyle! He could'n passify 'er no way in de worl', an' thu all dat nice talkin', thu all de tellin' uv 'er dat he wuz miles frum dar endurin' o' all dat 'struction, Miss sot dar like she wuz deef. So den he riz ter go, an' right in de entry-way, comin' out de parlor, an' weepin' like her heart done busted wid de *p*eanner, wuz my *young* Mistis. An', ser, de man acted dat hansome tell, nigger's I wuz, I felt proud. I did'n know 'twuz in de race—an' I said right den, dey is gent'men ermongst um! Thank God fur dat! dey *is* one, I done see 'im. An' I felt dat passified tell er peanner wa' no mo'n er juice-harp.

"An' dat night dey struck camp—way down yonder nex' dat line o' blue woods.

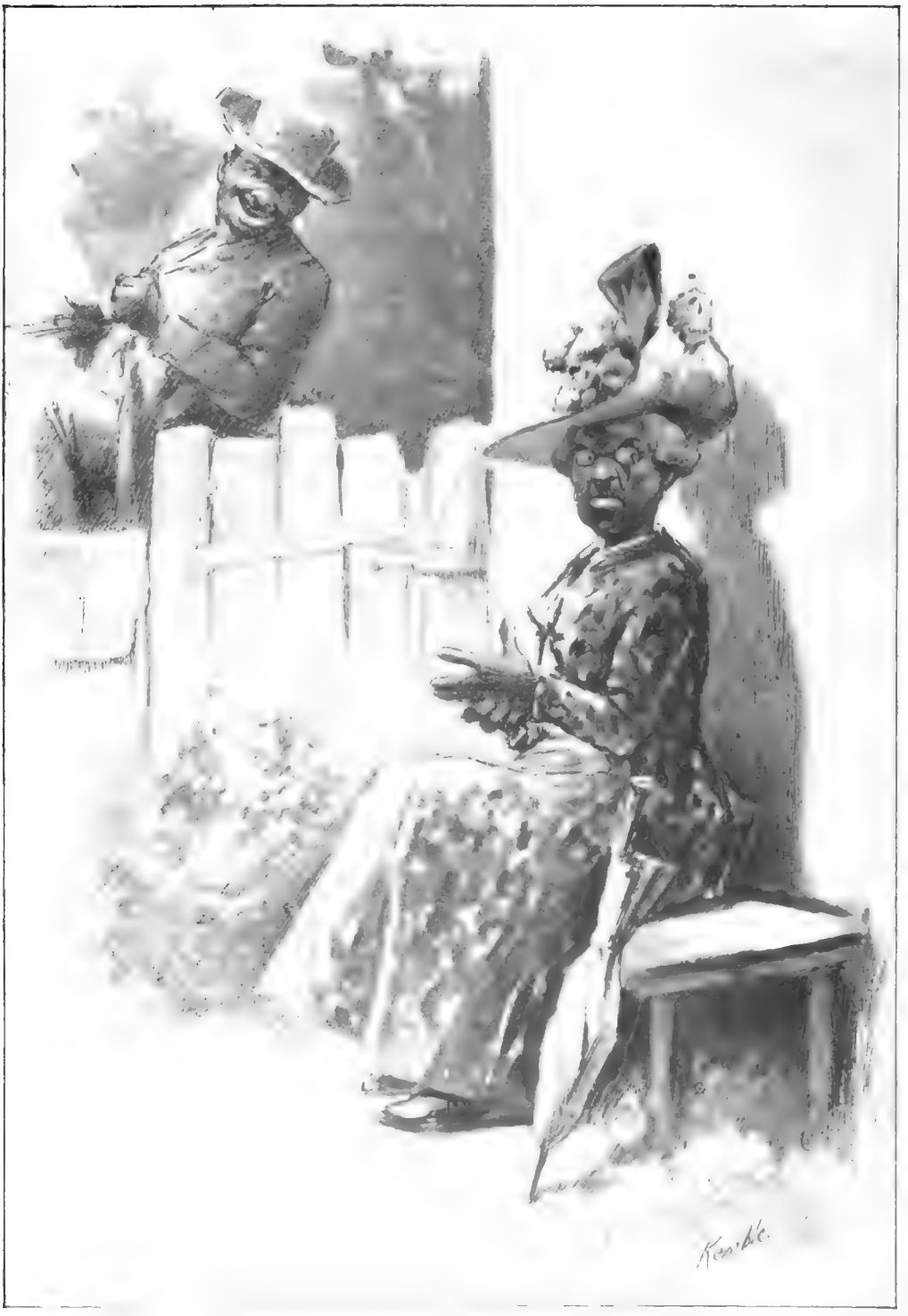
"An' erlong toads de fallin' o' de year dey axt Ole Miss's consent."

Not in the springtime, when "a young man's fancy lightly turns to thoughts of love," but "in de fallin' o' de year," so ran Aunt Betsy's story, had these two gathered up the joys of departed summer and come to Ole Miss for sanction. And according to Aunt Betsy, "dey did'n git no consent," and the reception accorded them was one that, while it did not cool their ardor, brought matters to a crisis and so left them.

"An' Miss! I sot up wid her de night thu; an' de way she went on, hurt my ve'y vitals. 'Er Yankee ter want my chile!'—dem's de words she uttered—'my chile!' Den she'd thow up er while, an' twix hit an' de heartache tergether, I did'n git er wink o' sleep. An' she'd ax so piterful, 'Did *you* know?' *Me* know!! An' she kep' on crowdin' me tell dem plasters sot in ter drawin'—de one on 'er fo'head, one on 'er chist, an' one on de spine o' her back. But fur dat, I sho would er deceived my confidence; dey drawin' so well wuz all dat saved me: an' er *leetle* mo' pepper long wid de mustard would er drawed ev'y bit dat mis'ry frum de min'. I tried it 'nuff ter know!"

When Aunt Betsy fell into a reverie, I picked up the thread of the story and fell into one myself. There was the camp ground "nex' dat line o' blue woods"; here was Ole Miss's mansion, less than half a mile distant: and between them was a gulf—a seething, angry gulf, full of bitterness and sorrow. Would Ole Miss cross first or "de Yankee"? And what would quiet the troubled water?

Digitized by Google
Original from UNIVERSITY OF MICHIGAN



"'TWUZ ILL-MANNERED, DAT'S WHUT 'TWUZ, ILL-BRED!'"

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

"Atter dat"—and Aunt Betsy's voice broke in upon my meditation—"de trouble come thick an' fas'. I wuz jes' ez sho ez I'm settin' here dat 'twould kill Ole Miss ter leave dat place. Seem like I wuz frettin' merse'f, an' Aleck he said, 'Oman, fur God's sake, git you er pipe; hits de onlies thing dat'll keep yo' mouf shet.' 'Twuz de truth, too; de cornserlation in de pipe wuz 'stonishin'. An' seem like hit gimme de mo'es rickolections! 'Twa' no time sence Miss an' Morster wuz married, an' me er young gal merse'f. I could hear dese quarters plum ring wid music, e'b'm ter de ole fiddles tunin'. An' fur de war, hit took er back seat when me an' de pipe kep' company.

"But de debt now, dat 'uz sump'n all de pipes in kerashun could'n lif', caze de man done come ter fo-cas' de morgidge—house, lan', ev'ything gwine. I say, 'I'm glad we ai' got no stock! I'm glad! An' de onlies cow dey is, I'm gwine make go dry ef I has ter 'buse her to do it.' I felt jes' dat pervoke.

"An' de las' night come. Ez fur me, I did'n cry. Not when I vis'ted dese empty cabins, ev'y ole peach tree an' rosebush me'n Miss use ter love—'twa' cryin' I done, 'twuz bleatin'! An' when Miss went 'long in de twilight, lookin' dat white an' silent, ter pay de las' call on Morster's grave—wall, ser, I rolled on de groun', an' *hollered*. An' atter while, little Mistis come out to hunt me. Ef I had'n knowed who 'twuz comin' thu de gras, pas' de hedge an' de flower gyarden, I'd er thought 'twuz er sperrit—she looked dat white an' supple. An' seem like dey wuz sump'm on 'er min' mo' in leavin' dat place, an' bimeby she up an' tole it. 'Aunt Betsy,' she say, an' her voice wuz sof' an' sweet, like ev'y gal's is when dey cotin', 'Aunt Betsy, does you think *he* knows?'

"An' I say, 'Who!!! dat vilyun? Tooby sho.' Den she 'lowed.

"'No! *You* know, Aunt Betsy, an' I wants you ter go an' tell 'im good-by, an' give 'im dis.' An' she tuck de flower frum de bosom o' 'er dress an' laid it in my han', my ole, black, rusty han'! I 'clare ter gracious hit looked dat pyo an' white, I felt skeered ter toat it. But I'd er tuck it fur dat chile ef't ud been er toad frog, an' I'm fyeard o' dem things ez I is o' Satan.

"I made tracks dat night, too. An' mer heart never failt me tell I hyeard somebody say, 'Halt!' Wid dat I never halted, I drapt; drapt on de fur side o' er log an' prayed—prayed tell de sojer come nigh ter listen. An', ser, wid mer han's helt out in de darkness, an' mer eyes turnt up toads de element o' stars, I hyeard dat gun go bang! I seed one po' nigger flut'rin' in de dus'. Dat's whut I remagined, yer see, caze de sojer busted out laughin', an' when I had bre'th ter ax fur de capting, he carried me right whar he wuz at.

"An' dat's why I say whut I does 'bout coteship. De man wuz dat lank, he wuz dat sorrerful tell dey wa' no sense in it. An' de one little squushed-up flower? De ve'y bre'th o' it wuz savior ter 'is nost'ils."

"Savior ter 'is nost'ils." What *could* that mean? I was half amused, half thoughtful as I looked at Aunt Betsy, and wondered if there were people on earth as ungrammatical, and as unconscious of the fact as she and her kind. There is an old, old saying that "where ignorance is bliss, 'tis folly to be wise." And folly, indeed, it would seem to disturb a mind like hers, with things it was not able to grasp. She was off in another reverie, and I was forced to ask what happened next.

"I jes' wuz studyin' 'bout dat," she replied. "Whether 'twuz de sword he had on, er becaze he wuz pleased wid de flower, er becaze I'm er natchul fool. 'Twuz one o' de three, caze I sot dar an' cried like er baby. Me! er ole nigger! weepin' befo' dat orf'ser. An' he spoke so kin' an' feelin' tell when he say, 'Whut's de matter, Auntie?' I did'n had no mo' sense den ter tell 'im. Yes, ser, he hyeard dat nar'tive frum one en' ter de yuther—he hyeard it straight, an' he hyeard it pitiful, an' when I lef' dar de moon wuz settin'.

"An' nex' mornin' dey come er horseman down de road. Seem like he rid in haste, but whether 'twuz de sheriff, er de probate judge, er whether 'twuz one o' de outriders I furgits now which. Whut he fotch is de gist o' it all, anyhow. 'Twuz de title-deed! Plum writ up in fur'in langwidge! Plum pertickler in sayin' dat de debt wuz paid. An' I says ter myse'f right den, 'Pent, Ole Miss; 'pent in de sackcloth an' de ashes; 'pent!!! fur dey *is* one high-minded Yankee.'"

The sun was not far from setting and crows were revelling in the corn-field when Aunt Betsy took up the long-idle hoe. "An' ser"—she was already moving away—"when dat coteship started ergin, de birds o' de air sot back ter listen."

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

WHAT TO EAT TO LIVE LONG.

By Dr. H. W. Wiley,

Chief of the Division of Chemistry, U. S. Department of Agriculture.

IF there is any one "ruling passion strong in death," it is the passion to live. In the midst of complaints and grumblings when the weather is bad and the crops fail, and business is stagnant and prospects are blue, the desire to "shuffle off the mortal coil" continues to be confined to the insane or the impossible.

The desire to live is undoubtedly the dominant human passion. One of the strange contradictions of human nature, however, is seen in the fact that so little regard is paid to the laws of health by average humanity. The old couplet,

"When the Devil is sick, the Devil a monk would be,
When the Devil is well, devil a monk is he,"

applies with far greater force to hygiene than theology. The laws of health are reasonably well understood. The conditions of maintaining health are known. They are taught in our common schools, high schools, and colleges, in newspapers, in magazines, and in public lectures. People approve and applaud and return to their homes to continue the violations of the laws of health to which they have always been accustomed.

FOOD "FADDISTS" WHO MEAN TOO WELL.

ONE principal reason of this indifference is doubtless due to the efforts of faddists and theorists, who are often designated by the colloquial yet descriptive word, "cranks." Whatever the origin of this generally employed word may be, it has come to signify the monomaniac whose enthusiasm is always ahead of his information and judgment. I am far from belittling the services of this class of our citizens, who do so much to stir up the stagnant pools of politics and social economy, not to speak of religion and philosophy, but their services in the cause of hygiene are somewhat problematical. As a rule, the kernel and essence of the faddist's theories are sound sense, but he so expands and envelops this grain of common sense as to make it utterly impracticable and impossible of belief. If one falls ill, every friend who visits has a specific for his disease, which he insists on having tried, and cites the miraculous cures which it has effected, and that it has never been known to fail.

In the matter of foods, these faddists are always in evidence, and each one has invented or discovered a particular food or combination of foods which is the sole source of energy, nutrition, and growth. Were this particular food used properly from infancy, the life of man would be indefinitely prolonged, and only accident or contagious disease would bring it to a close. The mythical ages attained in history, both sacred and profane, would become an expression of immature youth compared to the results which this particular food would secure.

An excellent illustration of this is shown in a single day's experience of the writer, only a short time ago. During this day he was visited by three earnest and honest men, each of whom had discovered a food, or food adjunct, which would make sickness impossible and death a rarity. From the accounts which they gave of the virtues of these foods, one could be easily led to believe that the only way in which the future man could distinguish himself from his fellows would be to die.

One of these gentlemen had discovered that the use of an abundant quantity of common salt after each meal, or judiciously swallowed during the day, would be a sure prophylactic against every ill to which flesh is heir. Beginning with the Garden of Eden, he claimed that the septic poison was the fruit which grew upon the forbidden tree, and that nature had provided the one antiseptic, by the judicious use of which the original septic poison ingested into the fruit in the Garden of Eden could be wholly neutralized and eliminated. He regarded any one incapable of believing this theory as deficient in judgment and common sense.

He was followed by another man, evi-

Digitized by Google
Original from
UNIVERSITY OF MICHIGAN

dently as earnest and as honest, who had discovered that the only perfect food for the human being was composed of nuts and fruits. Cereals, he affirmed, were malignant poisons filling the system with mineral matters which caused disturbance of health, hardening of the arteries, and premature old age. Our ancestors, he said, the anthropoid apes, were the most perfect animals that ever existed; freest from disease, strongest in muscular power and energy. These progenitors, he asserted, ate nothing but fruits and nuts. Cereals were intended by the Creator only for egg-laying animals—that is, animals laying eggs with shells composed of lime. Therefore, the cereals should be left for the birds and fowls, while man should confine himself to his natural diet of nuts and fruits.

Scarcely had this apostle of pomology left the room when another gentleman, more aged, more earnest, and apparently more honest, appeared upon the scene. He had discovered that the wheat grain was the perfect food of man, if eaten in its entirety. There was no other food which would preserve health, prevent disease, and prolong life indefinitely. His object was to get the influence of public officials to secure from Congress the passage of a law which would forbid the ordinary milling of wheat, and make it a crime and misdemeanor to produce the ordinary flour of commerce. These millers, he said, are poisoning us, producing untold misery, and shortening the period of human life. They are adulterators, thieves, and murderers, who merit only the condemnation of the people and the punishment suitable to the crime which they commit. The man who eats only whole wheat, properly prepared, is certain to be free from disease and to have his life indefinitely prolonged. The only reason he would die at all is because of the anti-hygienic sins of his ancestors, the effects of which he has inherited.

In all three cases, these men were not in unusually good health. In fact, one of them had the appearance of a confirmed invalid. When I pointed to myself as an illustration of good health, and said that I ate everything which came handy, he said: "Your good health is only apparent. You are diseased. I, alone, of all the people I know, have perfect health."

There is, however, a grain of truth in the theories of each of these enthusiasts. Common salt is undoubtedly wholesome when properly used. Nuts and fruits are good in their way. Whole wheat is an excellent food. Nevertheless, in order to get a better view of the relation of food to longevity, we must be able to see more than a single part of the subject. Even in an attempt to view the subject as a whole, the writer himself may invite the same criticism as that which he has passed upon the three wise men mentioned above.

THE SELECTION OF SUITABLE FOODS.

THE first principle to be considered, in treating of the effects of food upon longevity, is the suitability of food for the purposes for which it is required. These purposes are threefold: First, to secure growth—that is, the formation of new tissue; second, to preserve tissue already formed—that is, to replace waste; and third, to supply animal heat and energy—that is, muscle and tissue activity. It is evident, therefore, that food should be adapted to all these purposes.

In infancy and youth the dominant function of food is to secure growth. It would be an unwarranted assertion to state that nature had not provided for the infant the food best suited for the purpose. We must admit that among mammals the healthy milk of the healthy mother is the food which should be employed. Unfortunately, either by reason of degeneration, carelessness, or unnatural causes, it does not always happen that the infant of a mammal, especially the human, is blessed with a healthy mother who produces normal milk. In this case, the art of the chemist must be consulted, and this art should lead to the production of an artificial food for the infant, resembling in its nutritive properties, as nearly as possible, the food furnished by a healthy mother.

The market is flooded with infant foods of all kinds, some of which are good, some indifferent, and many of which are absolutely bad. The mean composition of normal mother's milk is very accurately represented by the following members, and is compared with the various kinds of milk used as substitutes:

Kind of Milk.	Water p. c.	Sugar p. c.	Cascin p. c.	Fat p. c.	Ash. p. c
Human	88.75	6.00	1.50	3.45	0.30
Cow	86.90	4.80	3.60	4.00	0.70
Goat	85.70	4.45	4.30	4.75	0.80
Ass	89.50	6.25	2.00	1.75	0.50
Mare	90.75	5.70	2.00	1.20	0.35
Sheep	80.80	4.90	5.56	6.85	0.90

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

The sugar in milk is not the ordinary sugar of commerce, derived from sugar cane or beets, but a different kind known as milk sugar or lactose. Under the head of casein, also, are included, in the above table of composition, all the nitrogenous constituents of milk—namely, casein, albumin, etc.

It is seen at a glance that human milk differs from the milk of other animals in two important particulars: first, in having a very low content of casein, and second, an exceptionally low content of ash or mineral matter. The milk which resembles human milk most nearly is that of the mare, but mare's milk is very deficient in fat. To render the milk of the cow similar to human milk in composition, it would be necessary to extract more than half of the casein, and to add in its place an equivalent amount of milk-sugar. This change would make the milk of the cow very nearly like that of woman, since in the extraction of the casein a considerable quantity of the ash would also be removed.

After the period of infancy, the character of the food suitable to the best nourishment of children is somewhat changed, but it is evident that during the whole of the growing period milk, as indicated, is one of the most valuable and useful foods.

It is not possible here to enter into any elaborate discussion of the proper foods for adults, but I can indicate some of the great underlying principles governing, or which should govern, the use of foods.

The chemist, in conjunction with the physiologist, has discovered not only the composition of foods, but also the functions of the different food constituents in the organism. The nature of the digestive process has been elucidated, and the disposition which is made of the various constituents of food, after assimilation, is now well understood. All the essential ingredients of foods may be grouped in four classes, namely, first, the starch and sugar class; known technically as carbohydrates, and including all the bodies in foods resembling starch and sugar in their chemical constitution; second, the fat group, including all the oils and fats; third, the nitrogen group, including all the foods containing nitrogen, as, for instance, milk with its casein, wheat with gluten, Indian corn with zein, the fleshy portions of meat, etc.; fourth, the mineral foods, including the elements which are found in the residue left after ignition, viz., the ash.

It is not possible to assert that each class of foods indicated above has a distinct use, the functions of the various classes overlapping and intertwining, but in each case there is a dominant utility which is capable of demonstration and description.

Digestive experiments have shown that the starches and sugars are sources of animal heat and muscular energy. These also, during the process of digestion and assimilation, provide the nutrition for the principal part of the fatty tissues of the body. Hence, the dominant function of this group is a double one, namely, to furnish animal heat and energy and to supply fat.

The function of the fats and oils is essentially the production of animal heat and energy. It is not probable that notable quantities of the fats and oils consumed in the food become a part of the fatty tissues of the body. For instance, one of the principal fats which we eat is that of butter, and yet there is no deposition of fat in the human body, as a tissue, which resembles in its chemical composition the peculiar character of butter fat. The oils which exist in vegetables are also an important article of fat diet, and yet the fats of the human body are not identical, in any sense, with the oils of vegetables. Even in the case of cannibals, it is quite certain that the fat which they eat does not become, in any way, a portion of the fat tissues of their bodies.

On the other hand, the fatty tissues are derived chiefly from the ingestion of sugars and starch, which are broken up in the body and the elements of which they are composed reformed into fatty tissue.

The function of the nitrogenous foods is also a double one. They furnish considerable quantities of heat and energy, but their dominant function is to supply the nitrogenous constituents for the tissues of the body, chiefly the muscles and tendons. Nitrogenous tissues, however, are found in every part of the body, in the bones, brain, nerves, etc., as well as in the tissues already named. These nitrogenous foods undergo profound changes during digestion and assimilation, so that the tissues formed therefrom do not resemble in any marked manner those which are consumed in the food. Even the flesh eaten in our foods undergoes profound disintegration, with a com-

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

plete reformation of its nitrogenous elements.

The mineral foods often enter the body in a form in which they can suffer partial oxidation, and thus contribute, to a small extent, to animal heat and energy. Their chief function, however, is to supply the material for building the solid tissues of the body, such as the bones and teeth. Mineral food is just as necessary and important in the digestive economy as any of the foods belonging to the other three classes. Water is one of the principal mineral foods, though not usually classified as such.

The plain inference from the above statements, in regard to the use of food, is that it should be so balanced, in respect of its various constituents, as to present them all in character suitable for digestion and in quantity necessary to supply the needs of the body.

If any particular class of food is used in excess, the ration is unbalanced and there is waste of food material and also of vital energy to get rid of it. If any class of food is deficient in quantity, the same disdisturbance is caused, due to the lack of an essential ingredient, thus preventing the proper utilization of those which are present in sufficient abundance.

HOW TO USE FOODS.

THE first duty, then, of every one in selecting his food, so as to preserve his health and prolong his life, is to use as nearly as possible a "balanced ration." It is not meant by this that food should be totally digested and assimilated. Nature requires a certain amount of waste material, for the purpose of preserving the digestive organs properly distended and in good working order. All of our natural foods contain sufficient quantities of these waste elements to secure the purpose mentioned. The previous manipulation of foods, before ingestion, to remove these waste particles is reprehensible, leading to the construction of what is known as condensed foods, which are only to be regarded as emergency rations, to be used to tide over some abnormal condition of supply and not to be regarded as standard foods for general consumption.

The horrors of famine are well known, and millions of human beings have died of hunger. This mortality, however, great as it is, cannot be compared to the other millions who have died from excess of food. Thus, the second great principle to be observed is that food should be eaten in sufficient, but not excessive, quantities.

The best nourished individual, other things being equal, is the strongest and most useful; and the best fed nations, other things being equal, are those which lead the progress of the world. An abundance of food is to be regarded as the essential foundation for all individual, social, economic, and national aggrandizement. Thus the very condition of affairs which best tends to the highest development in the individual and nation brings them to the verge of disaster, because it is easy when you have enough to get too much. I am not a believer in the doctrine of going away from the table hungry. One object of eating is to satisfy hunger, because hunger is the natural mentor which tells of the wants of the system. Satisfaction of hunger, however, is not gluttony. The dangers from overeating are not so much in the kinds of food employed as in the amounts of them consumed.

The effects of an exclusive diet on the health could be discussed learnedly and at length. I mean by an exclusive diet, one consisting only of vegetables or of flesh, or of vegetables exclusive of nuts or fruits or cereals. Personally I am no believer in exclusive diets. All the principles of comparative anatomy teach us that man is omnivorous, and if there were no comparative anatomy the natural tastes of man would lead to the same conclusion. Man is naturally a cosmopolite, and to be able to eat all is one of the conditions of being able to live everywhere. So I believe that the natural food of man is what he can get. Sometimes it may be flesh only, sometimes only vegetables, and generally all kinds.

There may be many cases of individuals who thrive best on an exclusive diet. With those I have no quarrel. If they have been able to find out what is best for them, they have been extremely fortunate. If they have the strength of mind to use this best, they ought to be congratulated. If they have the means and opportunity to get it, they are to be envied. However, they are scarcely to be accorded the right of prescribing and proscribing for all mankind according to the dictates of their own

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

idiosyncrasies. My belief is that health and longevity, upon the whole, are best secured by a mixed diet.

Attention should be paid to the suitability of food for special functions in the individual. In this also we are met at the first by an army of faddists and theorists who have discovered special diets for special purposes. The markets are flooded with these products: nerve food, brain food, muscle food, and so on. A common superstition is that fish is a good brain food, and that the eating of meats has a distinct influence upon character, rendering the consumer more ferocious and vicious. Such ideas may be pleasant to theorists, but they have no foundation in physiological and chemical fact. There are certain influences of food, however, on the organism which are well established; viz., that the use of a diet containing a large excess of sugars and starches tends to produce corpulence. The farmer understands this principle in feeding animals for the market. He would never think of attempting to fatten a pig by feeding him an exclusively nitrogenous food, but he gives him a food rich in starch, such as Indian corn. On the other hand, the working horse is best nourished by oats, containing a large excess of nitrogenous principle, and at the same time a sufficient quantity of starch and sugar to supply animal heat and energy. The constant use of a muscle tends to hasten the changes of tissue, and thus high muscular endeavor requires a food rich in nitrogenous elements to supply the waste of muscle, while at the same time it requires a food rich in starch, sugar, and fat to supply animal heat, which all muscular exertion needs in abundance.

Therefore, if you want to get fat, eat large quantities of food, more than you need, and have that food contain excessive amounts of sugar and starch, and sit still during digestion. I do not refer, of course, in this case to certain derangements of the digestive organs where all kinds of food seem to be turned into fat, because this state is one of disease, but only to the normal production of adipose tissue, as in fattening a healthy animal.

The lack of sufficient mineral foods, also, especially for growing children, prevents a normal development of the bony tissue and tends to the production of the disease known as rickets.

FOOD FOR THE MIND AND MORALS.

THE influence of the kind of food upon the mental and moral state, aside from the general effects as outlined above, seems to be slight. How often have we heard the expression, "Eat flesh, you will think flesh; drink beer, you will think beer," etc., and yet we must admit that that nation which in the last century has led the thought of the world has been a beer-drinking nation, and that country which has led in literature and in material progress for three hundred years has been a beef-eating nation. Evidently to think beef and think beer have been conducive in a high degree to human progress, if such statements as mentioned are true.

There is no doubt of the fact that an excessive use of alcohol acts on the system as a direct poison and produces most disastrous effects, and to eat too much beef deranges digestion and thus interferes with thought; but further than this there seems to be no grounds for specialization. I have often heard it claimed that eating of flesh tends to turn man into a predatory animal of a carnivorous character—that is, to make him a lion, a tiger, or a hyena—but it appears more reasonable to suppose that the lion feeds on flesh because it is his natural food, rather than the eating of flesh made a lion out of him instead of a gazelle. I don't know how many billions of years you would have to feed a gazelle on flesh before it would be turned into a lion; nor could I calculate how many years you would have to feed a lion on cereals before you could turn him into a gazelle.

There is not a particle of evidence that a moderate amount of meat in a diet tends to corrupt a man's moral nature or to make of him a cannibal or a murderer, nor is there any corroborative evidence of the assertion often made that a vegetable diet will soften a man's manners, improve his morals, correct his taste, and make a gentleman of a villain. The man who robs the bank is as apt to eat vegetables as beefsteak, and the minister who, in a peaceful life and an upright conduct, leads his flock towards better things, has been known to indulge in beefsteak. In fact, we must put aside all such notions, at least for the present, as being possible solely in imagination and not resting upon any chemical or physiological fact or capable of being demonstrated in any

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

convincing way. We all admit that an upright life, a temperate habit, and a proper conduct do conduce to health and longevity, but that the eating of this kind of food or that kind of food, aside from the general principles already laid down, tends to secure such a desirable condition, is wholly unproved.

THE QUESTION OF QUANTITY.

HOW much one should eat in order to best conserve the health is a difficult question to answer, because of size, occupation, sex, and idiosyncrasy. Almost every individual requires, to some extent, a special dietary. The best that can be done in this direction is to determine the average in a large number of persons. This has been done in many cases, both in this country and in Europe, with all classes. The average daily consumption of food for 421 operatives, male and female, in cotton mills and other factories in New England, as determined by the researches of the Department of Agriculture, is as follows:

Protein or nitrogenous foods...	4.48	ounces.
Fats	6.53	"
Sugars and starch	18.74	"
Mineral foods not determined.		

The average food eaten by 115 American college students (men) per day amounted to the following quantities:

Protein or nitrogenous foods...	4.20	ounces.
Fats	5.33	"
Sugars and starch	15.56	"
Mineral foods not determined.		

The average amount of food eaten per day by twelve American football players is as follows:

Protein or nitrogenous foods...	6.39	ounces.
Fats	10.30	"
Sugars and starch	19.65	"
Mineral foods not determined.		

The United States army ration, per person per day, has the following composition:

Protein or nitrogenous foods...	4.23	ounces.
Fats	5.68	"
Sugars and starch	16.02	"
Mineral foods not determined.		

Strange as it may seem, the navy ration, which one would think would be a lighter one, is as follows:

Protein or nitrogenous foods...	5.05	ounces.
Fats	6.49	"
Sugars and starch	18.35	"
Mineral foods not determined.		

The German army ration, on a peace footing, is:

Protein or nitrogenous foods...	4.02	ounces.
Fats	1.38	"
Sugars and starch	16.90	"
Mineral foods not determined.		

Japanese students in the government school at Tokio consume the following quantity of nutrients per day:

Protein or nitrogenous foods...	4.06	ounces.
Fats	1.06	"
Sugars and starch	22.32	"
Mineral foods not determined.		

In England, the consumption of nutrients per day by the Royal Engineers, when in active service, is as follows:

Protein or nitrogenous foods...	5.08	ounces.
Fats	2.92	"
Sugars and starch	22.19	"
Mineral foods not determined.		

The Italian army ration, on a peace footing, consists of:

Protein or nitrogenous foods...	4.02	ounces.
Fats	0.49	"
Sugars and starch	20.82	"
Mineral foods not mentioned.		

It will be observed in the above data that no account is taken of the mineral foods, which are always smaller in quantity as compared with the other classes, and while not less important from a nutritive standpoint, are as a rule not considered in the popular study of dietaries.

A comparison of the elements of American rations shows that, as a rule, our people are more generously nourished, especially in respect of fats, than those of any other country. In fact, the suspicion is sometimes aroused that other countries do not eat too little food, but that we eat too much. This point, however, can only be determined by more elaborate investigation.

It is somewhat remarkable that in the natural selection of diets the various nations of the earth have preserved quite a constant ratio between the nitrogenous elements of the food, on the one hand, and the fats and sugars and starches, on the other. This ratio for human foods stands pretty constantly between 5 and 7—that is, if we add to the weight of the carbohydrates the weight of the fats, multiplied by 2.25, and divide the sum by the weight of the protein, the quotient will usually be represented by a number between 5 and 7. If this number

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

is less than 5, the ratio is said to be a narrow one; if greater than 7, it is said to be a wide one.

In the case of a vegetarian diet, excluding butter and oils, however, the ratio is uniformly wide. In Japan, where rice, which is almost a pure carbohydrate, is used in so great abundance, the ratio is quite uniformly wide, though there are a few instances to the contrary. Among nations that eat much meat, the ratio is apt to be somewhat narrow—that is, 5 or less. The average ratio for 670 persons in the United States, as determined by the Department of Agriculture, was 7.8. For 111 students in Connecticut the ratio was found to be 6.8. In 14 French-Canadian families of laborers residing in Cambridge, Mass., the ratio was 9.3, while in the case of 71 French-Canadians employed in the mills in different parts of Massachussetts the ratio was 8.5.

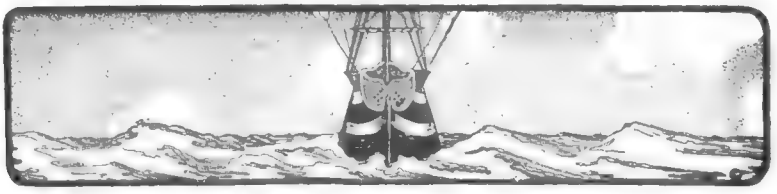
In general, it may be said that where a generous supply of food is available, the wide ratio tends to the development of fat or corpulence in the individual, while a narrow ratio has the contrary tendency.

Without going into further detail, it can only be said that the normal amount of food required by an individual varies with the environment and with habit. In a cold climate, more animal heat is required to be developed than in a warm. A man engaged in active physical labor or exercise requires more food than the same man at rest. Judgment and normal hunger are to be consulted in these matters, but every one wishing to live long should avoid the danger of continuing to eat his usual ration when passing from an active outdoor life to one of sedentary habits. In this case, the appetite continues longer than the need for it, and many a life has been shortened by overeating when the habits of life have been changed from the active to the sedate.

THE USES OF A LONG LIFE.

THERE is no doubt in my mind that an understanding of the laws of health, a study of the nature and functions of food and the proper use thereof, and improvements in sanitary science, will lengthen the average life of man. That every man in the future will be a centenarian is, so far as we know, only an idle wish, but that the macrobiote will be more common in the years to come there is no doubt.

Long life without health and strength, from the point of view of mere utility, is not to be desired. Place must be made for the young, and nature's method of taking off the old and the decrepit is to be unreservedly commended from the mere economic point of view. But if the old man can preserve to a reasonable degree the vigor and energy of his manhood, he is of more use to society than the young man, and the young man must wait his turn. Aside from all sentiment, the true principles of economy lead us to believe that man should live just as long as he can be a worker and an active contributor to human progress. So that, both from the sentimental point of view, in which life is sweet for its own sake, and the practical point of view, in which it is useful for the good of others, longevity is to be desired. The part which food will play in securing it has been briefly outlined. Knowledge, good judgment, and broad views should determine the character, the quality, and the amount of food used by each individual. Proscription and fancies can never be of general application. The food of the future, let us hope, will be abundant, the rations well balanced, the cooking of the best, and the table endowed with all the attractiveness which good taste and education can provide. The old men which this regimen will produce will not be burdens upon the community, but reverenced for their usefulness and honored for their accomplishments.



Digitized by Google
Original from UNIVERSITY OF MICHIGAN

THE TRUTH ABOUT "CHRISTIAN SCIENCE."—A PSYCHOPATHIC STUDY.

II.—AN EXPLANATION OF MENTAL HEALING.

By Thomson Jay Hudson, LL.D.,

Author of "The Law of Psychic Phenomena," etc.

I HAVE said that many remarkable cures of diseases have been effected by persons who practise mental healing under the name of "Christian Science." Of this there is no room for reasonable doubt. I have also shown the illogical attitude of those who claim that the fact of healing demonstrates the soundness of the theory under which they practise. Nevertheless, to the mind of the superficial observer, there is a mysterious nexus between the theory and the results of the practice of Christian Science; and it remains to explain the real cause of the phenomenon, and thus divest it of the glamour of mysticism with which it has been invested by superstition.

In the first place, then, Christian Science, considered as a therapeutic agent, is a system of mental healing. No good Christian Scientist will gainsay that proposition, since there is no such thing as matter, and all is God and God is mind.

The next proposition is, that success in mental healing is dependent upon mental conditions. That is to say, a certain well-defined condition of mind in the patient is absolutely essential to success in mental healing. Christian Scientists themselves will hardly deny this proposition, for to do so would be to repudiate the Master Himself as an authority on that subject. Jesus of Nazareth was the first to define the condition necessary to successful mental healing. His whole career was demonstrative of the truth of His declaration. And all the experimental researches of nineteen supervenient centuries have served but to confirm and illustrate its truth. In that declaration He summed up the whole law of mental healing in the one word "Faith." That was the one mental condition on the part of the patient which He constantly insisted upon as essential to the exercise of His power. That it was essential was clearly evidenced by the fact that He could not succeed in healing the sick in His native city "because of their unbelief."

CHRIST'S SCIENCE AND "CHRISTIAN SCIENCE."

THE far-reaching significance of His declaration seems never to have been appreciated at its full value, especially by Christian Scientists and others who believe that mental healing is due to the exercise of some force, miraculous or otherwise, by some agency extraneous to the patient himself. The words of Jesus emphatically negative the belief in any extraneous agency whatever. The word "faith," as before remarked, indicated the mental condition essential to success in healing. It is the energizing principle of the human soul, and without which it is powerless to heal the body. And when Jesus declared to His patients, as He did with insistent iteration, "Thy faith hath made thee whole," it was a clear, positive and emphatic statement of the one basic principle of mental therapeutics. It was equivalent to saying, nineteen hundred years in advance, just what modern experimental science has demonstrated to be true, namely, that the mental energy that heals the sick resides within the patient himself. All that the healer does, or can do—all that Jesus did, or pretended to do—was to induce in the mind of the patient the necessary mental condition, to stimulate, by appropriate acts and words, the energizing principle of his soul—faith. No act or word of Jesus militates, in the slightest degree, against that one emphatic declaration. It was, in fact, a proclamation, or formulation, of the Supreme Law of Mental Therapeutics—the law under which He performed His wonderful works;

Digitized by Google

Original from UNIVERSITY OF MICHIGAN

the law that He taught to His disciples; the law under which His promise was made that those coming after Him should do "even more wonderful works" than He had done; the one universal law under which all mental healing has been accomplished since the beginning of Time.

This is Christian Science as Christ understood it. At the very threshold of the inquiry, therefore, we find it to be the very antithesis of the Christian Science of modern times, in that Jesus declared that the healing power resides in the patient, whereas modern Christian Science teaches us, first, that there is nothing to heal, and secondly, that God Himself interposes and does the healing.

FAITH—THE ONE LAW OF MENTAL HEALING.

IN undertaking to correlate all methods of mental healing, and to reduce them to one general principle, I shall assume that the Master knew the fundamental law of the science of which He was the Great Exemplar. I shall hazard nothing in this assumption, even from the most rigidly scientific standpoint, for I shall proceed to show that the discoveries of modern science demonstrate the truth of His declaration.

I shall also assume that there is but one law of mental healing. Nature is not prodigal of laws; but those that exist are immutable, and they are universal in their application. Thus the law of gravitation applies alike to the sun, the stars, the planets, the earth, the falling apple, and the smallest atom in the material universe. The law of mental healing is also universal if "nature is constant," and it applies to all methods alike, without reference to any one's theory of causation or to the names by which the various systems are designated. If, therefore, any person is healed by mental processes, it follows that the law has been invoked, whether he is conscious of it or not; just as the workingman who falls from a scaffold obeys the law of gravitation, although he may never have heard of Newton or his *Principia*. If told that he and mother earth were attracted to each other with a force proportioned directly as to the mass and inversely as to the square of the distance, he would doubtless blush deeply and perhaps deny the soft impeachment, just as the Christian Scientist denies, with hysterical vehemence, that she ever was guilty of healing the sick under the same law that prevails in Hypnotism, Mesmerism, Animal Magnetism, Fetichism, or any of the other isms under which mental healing has masqueraded since the dawn of creation. Nevertheless, it is just as true that there is but one general law of mental healing as it is that there is but one general law of gravitation. What that law is, and why it is effective under all systems and in spite of all theories of causation, I shall now try to make clear to the general reader.

I have shown elsewhere * that Jesus of Nazareth was endowed with an intuitive knowledge of the laws of the human soul. The internal evidence of this fact contained in the history of His life, when considered in connection with the discoveries of modern psychological science, is simply overwhelming. Especially is this true of His knowledge of the law of mental healing, the salient feature of which, and the only one which it is important that we should consider in this connection, has already been mentioned above, namely, His declaration that the healing power resides within the patient and not in any extraneous agency; that "faith" is the energizing principle of the soul, and that when faith is perfect "all things are possible." If, therefore, we find that this, the fundamental postulate of the Master, is demonstrated by the facts of Experimental Psychology, we shall be in possession of the key to the mystery. That is to say, we shall have found the nexus of cause and effect which correlates the undoubted facts of healing by the methods of Christian Science, Voudooism, Fetichism, and kindred superstitions with those of Hypnotism, Animal Magnetism so called, and all other methods of mental healing.

AN ARGUMENT BASED ON THIS LAW OF CHRIST'S.

ASSUMING then, provisionally, the absolute veridity of the Master's postulate, it follows that the office or function of the healer is simple to the last degree, and consists in stimulating, energizing, and directing that force within the patient which does the work of healing. And this is what Experimental Psychology has de-

* See "The Law of Psychic Phenomena," chap. xxiii. *et seq.*

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

monstrated to be true in all cases and under all conditions. Briefly stated, all experiments in psychical research, together with all the facts recorded of mental healing in all the ages of the world, conspire to prove that the following propositions furnish the master-key to all the mysteries of mental therapeutics:

1. Man is endowed with a dual mind—objective and subjective.

2. The subjective mind controls the functions, sensations, and conditions of the body.

3. The subjective mind is constantly amenable to control by the power of Suggestion.

It will at once be seen that, if these three propositions are true, the words of Jesus are scientifically verified, His every act in healing the sick is explained, and that all the facts of mental healing are explicable under the law of Suggestion.

That the first proposition is true is attested by every psychic phenomenon that has ever been recorded. That is to say, the mysteries that have puzzled and appalled mankind throughout all the ages have been dispelled and removed from the realms of superstition by the discovery of that fundamental law of Psychology. It was first publicly formulated, and the two minds or states of consciousness clearly differentiated, in 1893.* Since then it has been accepted as at least a valid working hypothesis by every unprejudiced scientist who has engaged in psychical research. In short, all psychic phenomena attest it; experimental surgery† confirms it, and the facts of organic evolution‡ demonstrate its scientific accuracy.

The second proposition is provisional, depending upon the verification of the first and third. It is explanatory of what has been vaguely termed "the principle of life," "the recuperative energy of nature," etc.

The third proposition embraces the greatest discovery in psychological science—the Law of Suggestion. The famous Dr. Braid, of Manchester, England, is entitled to the credit of laying the foundation for the discovery. But it remained for Liébault, of France, to formulate the law, thus rendering it practically available to science. In their hands, however, the law was confined to the phenomena of experimental "Hypnotism," a word which Braid coined to soften scientific prejudice against Mesmerism.

Under the dual-mind theory, however, it was seen that the Law of Suggestion is, *ex hypothesi*, a universal law of the subjective mind, dominating it under all states and conditions of the objective mind. It seems almost superfluous to say that this indefinitely enlarged the field of effective suggestion, and threw a flood of light upon all phases of psychic phenomena. For it was not only explanatory of why it is that the hypnotized subject can, by mere suggestion, be made to believe himself a dog or a devil, a great statesman or a helpless infant "mewling and puking in the nurse's arms," but why it is that the subjective mind of the spirit medium, dominated by the ever-present suggestion that she is under the control of spirits, not only believes itself to be a spirit, but will personate any one suggested, real or imaginary. It also shows how it happens that our lunatic asylums are full of Napoleons, Hannibals, kings and potentates, gods innumerable and sporadic devils.

What is more to our present purpose, it reveals the secret of all so-called imaginary diseases, or, more properly, diseases induced by morbid imagination; or, to be scientifically exact, diseases induced by false suggestions. It is safe to say that nine-tenths of all the ailments of the human family may be traced to this source. Such suggestions arise from a thousand different sources; *e.g.*, newspaper advertisements of patent medicines, especially those containing a long list of "symptoms" indicative of imminent danger and the stern necessity for immediate investment in a dozen bottles of the medicine. The success of this plan of suggestion is rendered easy by the fact that there are few imaginative people who cannot, by diligent introspection, find one or more of the advertised symptoms. Educated physicians are all well aware of the potency of suggestion in the creation of diseased conditions of the body. They have been so instructed in their schools and colleges, and many of them have had valuable practical experience along those lines in their daily practice. Comparatively few, however, have practically tested the potency of suggestion as a remedial agent. Hence they will be prepared to give but a theoretical indorsement of what is to follow.

* See "The Law of Psychic Phenomena."

† See Surgeon-General Hammond in his "Treatise on Insanity," quoted by the author in "A Scientific Demonstration of the Future Life."

‡ See "The Divine Pedigree of Man."

Digitized by Google Original from UNIVERSITY OF MICHIGAN

Those, however, who have studied the subject by scientific methods, and have had practical experience besides, will instantly recognize in the psychological formula above given a potentially complete explication of all the phenomena of mental healing. A very few words will suffice to render the explanation clear to the general reader.

IN WHAT WAY FAITH HAS THE POWER OF HEALING.

FOR the purposes of this argument we may leave the first proposition out of consideration altogether. The second proposition, that "The subjective mind controls the functions, sensations, and conditions of the body," embraces that potential healing force, resident within the body, which Jesus said must be energized by faith. It matters not what terminology we may employ to designate it, the fact remains that it exists. We may call it "the principle of life," or we may designate it by the histological term, "communal soul" (Haeckel), which is that intelligent energy which controls and regulates the functions of the innumerable cells of which the whole body is composed, each one of which is itself an intelligent entity. Each cell is highly specialized with reference to its location and its consequent functions, each having its special duty to perform. I do not step outside of pure materialism when I say this. Nor do I do so when I say that "the functions of an organ are the functions of the cells of which it consists," and that "disease is abnormal performance of function by one or more organs or tissues."* Disease of the body, therefore, is disease of the cells of the body, and the health or disease of the cell is determined by its normal or abnormal food-supply, which in turn depends upon the circulation or composition of the blood.†

These, of course, are very general terms, and they are of very wide, if not of universal, application. No educated physician of any of the schools will gainsay them, and every histologist will recognize them as embracing the very fundamentals of his science. Nor will any scientist deny that each and all of these cellular intelligences, which comprise all that there is of any multicellular organism, are governed by a central intelligence, sleepless, ever alert for the preservation of the body, instinctive, automatically controlling the involuntary muscles, and capable, in response to stimuli, of accelerating or retarding the action of every fibre and function of the body. These stimuli may be either physical or mental. They may consist of food supplies, normal or abnormal, or of medicines, or they may be purely mental. Thus the heart's action may be accelerated or retarded, or suspended altogether, by good or bad news. The same may be said of the circulation of the blood, secretion or excretion, digestion or assimilation—in short, the normal performance of any of the functions of the body may be inhibited or promoted by appropriate mental stimuli. It goes without saying that when the stimulus is purely mental the action of the central intelligence upon the cells involved is also mental. It may be direct, as in imparting an impulse through the nerve ganglia, or it may be indirect, as in the reëstablishment of normal metabolism in diseased cells by the induction of an increased flow of blood to the group affected. In either case it is a mental phenomenon induced by a mental stimulus. Medicines could do no more, and frequently they do much less.

"SUGGESTION" AS MEDICINE.

NOW, the existence of this central controlling intelligence, by whatever name it may be designated, or whatsoever theory one may entertain as to its ultimate origin or destiny, its powers, its potentialities, or its limitations, is now recognized with practical unanimity by all students, not only of the New Psychology, but of Physiology, Physiological Psychology, and Histology. Moreover, what is more to our present purpose, every student of Experimental Psychology knows that this central intelligence is constantly amenable to control by the subtle power of Suggestion. Indeed, Experimental Psychology may be said to have revealed its existence. It certainly has demonstrated its suggestibility, as well as its potency as a therapeutic agent when energized by an appropriate mental stimulus.

These stimuli are now known to Psychological Science by the generic name of "Suggestions." They are multiform in character, and in the hands of the skilful

* Green, "Pathology and Morbid Anatomy," pp. 29, 30.
† Op. cit.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

practitioner they are varied in accordance with the individual idiosyncracies of his patients. But multiform as therapeutic suggestions are in practice, they may all be comprised under one generic term having reference to the fact that all disease, in its ultimate analysis, is disease of the tissues or of the cells of which the tissues are composed. The central intelligence, or "communal soul" as Haeckel terms it, necessarily conveys the mental stimulus which it receives to each of the cells affected. And as each cell is itself an organic entity, endowed with a mental organism of its own, and performing all the functions of animal life, it follows that the mental stimulus received by the communal intelligence is conveyed directly, as a mental stimulus, to the mind organism of each cell, thus stimulating it into normal activity. Effective therapeutic suggestions, therefore, are those which reach the intelligences composing the organic tissues that are diseased, stimulating those that are being atrophied, and regulating their supply of nutriment in cases of hypertrophy.

Any student of histology, who is also acquainted with the psychology of micro-organisms, will readily grasp my meaning and be able to extend the principle involved to all cases of effective mental healing. Even the non-professional reader will see at a glance that this hypothesis greatly simplifies the whole theory of suggestive therapeutics, in that it reveals the machinery through which mental stimuli, or suggestions, are made effective. Moreover, it divests "suggestion" of that indefinable glamour of mystery with which it has been invested. To the professional psychotherapist it will at once be obvious that other systems of healing, not supposed to be suggestive, owe their success, in great measure, to this principle; *e.g.*, Massage and Osteopathy. The masseur may well be supposed to convey, unconsciously, suggestions directly to the affected cells by manipulation of the group, and the osteopathist, also unconsciously, by manipulating the nerve centres leading to the group. This hypothesis will, in fact, be found to afford an explication of many groups and sub-groups of phenomena, particularly of all cures effected by touch, digital manipulation, or laying on of hands. Besides, it affords an explanation of many other mysterious psychical phenomena, outside the domain of suggestive therapeutics, which cannot be mentioned here.

THE ENERGIZER OF DISEASED TISSUES.

IT must now be obvious that a generic term for therapeutic suggestion must have special reference to the fact that, in its ultimate analysis, effective suggestions are those that directly or indirectly reach the seat of the disease; that is, the cell intelligences composing the diseased tissues. Its intimate association with Histology, or the branch of biology that treats of the structure of the tissues of organized bodies, suggests *Histo-suggestion;* but partly for the sake of euphony, and especially to avoid coining a word, I have chosen the term *Histionic Suggestion* to designate that form of mental stimulus that energizes diseased tissues, or the cells of which they are composed.* In this sense the term is generic, for that it embraces the efficient cause of all therapeutic effects of all forms of suggestion. Specifically, it may be defined as that direct method of conveying therapeutic suggestions which consists in personal contact or digital manipulation. I may add, *en passant*, that this method, when employed with intelligent purposefulness by the proper person, is by far the most efficient and universally practicable of all the multiform methods of imparting therapeutic suggestions. Indeed, it is often the only method by which they can be imparted. A demonstrative illustration is found in the soothing touch of the sympathetic mother, often instinctively applied to an infant too young to assimilate any other form of mental stimulus. Intelligently applied, its effects are indefinitely multiplied. Many fantastic theories have been invoked to account for this well-known phenomenon, often with the view of removing it, with its innumerable cognates, from the domain of Suggestion. But, in its ultimate analysis, it ranges itself under that generic term. It is Histionic Suggestion, peripherally applied. In other words, it is a mental stimulus or impulse, conveyed by a second subjective personality to the affected cells, precisely as the same impulse is conveyed by the central subjec-

* "Histionic" is a word not found in any English dictionary with which I am familiar. My authority for its use in connection with Histology is found in the English translation of Professor Haeckel's "Riddle of the Universe," chap. vii.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

tive intelligence of the adult patient in response to any form of suggestion.

This may seem to be a digression. But I have deemed it necessary, not only to assert the universality of the Law of Suggestion as applied to mental healing, but to demonstrate it by an appeal to the universally acknowledged facts of modern science. To that end I have sought to remove therapeutic suggestion from the domain of the mysterious and the occult, as well as from the dismal realm of superstition. I have endeavored to show its reasonableness, its conformity to all the known facts of human experience, and that its simplicity stamps it with the sign manual of Scientific Truth. I leave it to the intelligent reader to draw his own conclusions, and to make his own application to Christian Science, as well as to all other methods of mental healing.

RELIGION AND SCIENCE RECONCILED.

I SHALL doubtless be accused of trying to rob the Divine Father of the honor due to the Healer of His children by seeking to place mental therapeutics in the custody of a law. I am not. On the contrary, I regard it as the strongest possible incentive to Divine worship, the greatest conceivable reason for profound adoration, the most indubitable evidence of His infinite mercy and loving kindness to His children, to reflect that God has instituted a universal law for the healing of the nations—Christian, Pagan, and Savage. No stronger or more convincing teleological argument has ever been made than that derivable from the one pregnant fact that God has instituted a law of mental healing that adjusts itself with equal facility to all peoples, all beliefs, all superstitions, and all grades of civilization. Ancient history tells us of an indefinite number of methods, each based upon some fantastic theory or upon some gross superstition. Yet each method seems to have been equally effective, for history informs us that under all "systems" "miraculous" cures were common occurrences. In view of this well-known fact, one may well pause to inquire what would have been the fate of those primitive peoples if the law of Suggestion had not been as potent for good as for evil—for the promotion of health as for the creation of disease? For untold centuries Suggestion, in its myriad forms, was the only therapeutic agency available. But it was perfectly adapted to primitive conditions of human intelligence; *a fortiori*, because of its perfect adaptation to all forms of belief, superstitious or otherwise.

What is, if possible, of still more profound teleological significance is the fact that it is adapted to the uses of the highest civilization, for when the law is scientifically comprehended it may be intelligently applied. Besides, in the midst of the highest civilization yet attained, primitive minds still exist, primitive methods of reasoning still prevail, avatism still constitutes a retrograde force, and primitive superstitions, more grotesque and idiotic than any mentioned in ancient history, dominate the minds of large classes of our population. Why should they be vilified and abused, buffeted and contumeliously entreated, by press and pulpit, for that which is their misfortune and not their fault? They are availing themselves of the law of Suggestion in healing their sick and afflicted, and they are doing it in a way that is perfectly adapted to their grade of intelligence. They heal many, and their religion stands the test of quantitative analysis.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

CHRISTIAN SCIENCE IS THE TRUTH.

A REPLY TO "THE TRUTH ABOUT 'CHRISTIAN SCIENCE.'"

By W. D. McCrackan.

CHRISTIAN Science is not easily understood by those who approach it in a purely critical attitude.

The term "Christian Science" exactly describes the teachings for which it stands, both as to theory and practice. Christian Science is Christian because it explains to this age the inner meaning of the life and teachings of Christ; and it is Scientific, because it demonstrates the correctness of this explanation by actual results. The seeming conflict before the world of ideas to-day, the irrepressible conflict as it is sometimes called, is between revelation and reason, between Christianity and Science. The pulpit, the press, and the university are constantly searching for a common ground for these two factors. Earnest men, in their most earnest moments, are striving to reconcile them. Christian Science has discovered this common ground and effected this long-sought reconciliation, by appealing to the evidence, not of matter, but of Mind. Christian Scientists believe firmly in, and cling closely to, the definition in John xvii. 3: "And this is life eternal, that they might know Thee, the only true God, and Jesus Christ whom Thou hast sent."

Nor need any one be disturbed by the fact that the Discoverer and Founder of Christian Science is a woman. No fair-minded person can fail to rejoice when woman is seen taking her right place at last, side by side with man, coequal with him. Indeed, it is not without special significance that a woman, and an American woman at that, living in that part of the world where the equal rights of men and women are, on the whole, most truly acknowledged, should have arisen in this age to proclaim the Truth.

Those who are moved by the desire to know God, must sooner or later find themselves face to face with this Science of Being, this Christian Science; and the number of those who have found health and happiness through its help is growing rapidly in all parts of this country, and in other quarters of the globe.

It is with considerable pain, therefore, that Christian Scientists read an article in the June issue of Everybody's Magazine, which completely misconstrued their faith and misrepresented their Leader. Some of the misconceptions were, in point of fact, so absurd that they could have been left to destroy themselves, but others were too grave to be overlooked, and the Editor of this Magazine courteously placed a few pages at my disposal, for a refutation.

It is to be noted at the start that the writer pays a genuine tribute to Christian Scientists, when he admits that they "have healed the sick by hundred of thousands," and "have poured the balm of religious consolation into many a stricken heart." One wonders, after reading these words, what more the writer of that article could desire as a recommendation for any body of people. Instead of rising up and calling them blessed, however, he finds it in his heart to apply to them such epithets as "paranoiacs" and "mattoids." He writes of their "psychopathic (if not 'neuropsychopathic') tendency," and he even brings himself to use the terms "idolatry," "polytheism," "fetishism," and "atavism," in connection with their lives and conduct.

This is exceedingly unkind. It may safely be left to any unprejudiced person to judge of the sanity of men who are engaged in successful enterprises of various kinds, many of them controlling vast financial interests; and of women who manage large households, and carry on their work of benevolence with much tact and good nature. If to be successful in business, to pay one's bills promptly, to act as kindly and reliable neighbors in times of trouble, and to mind one's own business, are the symptoms which betray paranoiacs and mattoids, then Christian Scientists must plead guilty; and if to be charitable towards those who differ from you, to see the good in them, rather than the evil, and to give out love in return for malice, are marks of psychopathic (if not neuropsychopathic) tendencies, then again Christian Scientists must plead guilty.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

When to studiously avoid worshipping material things is idolatry; to cling as closely as possible to the commandment, "Thou shalt have no other gods before Me," is polytheism, and to strive to live in the "Mind which was also in Christ Jesus," is fetishism, then the charges of the June article may well be taken seriously. In the meantime, Christian Scientists are happy in their work of doing the exact opposite of what the writer imagines them to be doing.

In point of fact, the writer does not really accuse Christian Scientists of definite insane acts. He merely suspects them of being "paranoiacs" or "mattoids," or of concealing about their persons such strange tendencies as "psychopathic" (if not "neuropsychopathic"). He is undoubtedly anxious about a body of people who are proverbially happy and free from care. The references to auto-suggestion, hypnotism, voudooism, and atavism are not calculated to discourage Christian Scientists, who are going about with a smile on their lips, and a light in their eyes, doing good.

Nor is the writer quite fair to the public when he first protests against the "bitter denunciation" of the medical profession, and the "solemn objurgations and strenuous anathemas" of the pulpit against Christian Scientists, and then proceeds to ransack his store of technical terms in order to describe their supposed mental derangements. He would have done better to have acknowledged, with Mark Twain, that he did not understand Christian Science, and then have made genial fun of the thing which he supposed it must be.

THE TRUE DEFINITION OF MATTER.

FOR when all is said and done, what is the basic objection upon which the writer builds his disapproval of Christian Science? It is his apparent inability to understand the teachings of Christian Science in regard to matter, the material body, and the material universe. This is not an easy problem in metaphysics, but it can be solved with a little sincere study, and when once mastered, it opens up a new vista into heavenly places.

Christian Scientists are no longer satisfied with old-fashioned definitions of matter, but range themselves with the more advanced among the natural scientists, who are beginning to declare that matter can be satisfactorily defined only in terms of the human mind.

Professor Huxley writes: "After all, what do we know of this terrible matter, except as the name for the unknown hypothetical cause of states of our own consciousness?"

Grant Allen, the well-known author, in the course of an article on the late Professor Tyndall, thus speaks of matter: "The charge of materialism could only be brought against such a man by those abject materialists who have never had a glimpse of the profounder fact that the universe as known to us consists wholly of Mind, and that matter is a doubtful and uncertain inference of the human intelligence."

Now this human intelligence, or mind, is the very mind whose vagaries the writer has studied so closely, and which is subject to such strange perversions as paranoia, and exhibits psychopathic (if not neuropsychopathic) tendencies. Is it any wonder that Christian Scientists hesitate to trust their final conclusions, in regard to the eternal facts of existence, to so tricky a guide, one which may at any time be influenced by auto-suggestion or hypnotism, and prefer to rely for their true knowledge upon the One Mind, which is God? But since matter exhibits the phenomena of decay and corruption, Christian Scientists believe that matter must be a false concept of the human mind, in the sense that it cannot be eternal and indestructible substance. Only in this sense do Christian Scientists deny the existence of matter.

In other words, Christian Science overturns the commonly accepted view of materialism that matter is substance and Spirit unsubstantial, and proclaims upon good Biblical authority that Spirit is eternal and indestructible substance, while matter is a temporary and ever-changing concept of the human mind. The word "substance" is used in the same sense in which Paul used it, when he said: "Now faith is the substance of things hoped for, the evidence of things not seen." (Heb. xi. 1.)

The teaching of Christian Science on this point may best be understood by a reference to the Scientific Statement of Being, contained in "Science and Health with Key to the Scriptures," by Mary Baker G. Eddy, on page 464: "There is no life, truth, intelligence, or substance in matter. All is infinite Mind and its infinite manifestation,

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

for God is All in all. Spirit is immortal Truth; matter is mortal error. Spirit is the real and eternal; matter is the unreal and temporal. Spirit is God, and man is His image and likeness; hence, man is spiritual and not material."

It is clear that the claims of the materialist and the Christian Scientist cannot both be true. Matter and Spirit cannot both be eternal and indestructible in the same universe, and it is the unfortunate attempt to make this a possibility which produces confusion in the mind of the writer of the June article.

Let it not be forgotten that there can never be absolute accuracy in stating an infinite theme in finite terms, and that therefore spiritual truths must be spiritually apprehended. No mere intellectual analysis can reveal exactly what Christianity and Christian Science mean. They must be lived to be understood.

So unsatisfactory have commonly accepted views in regard to matter become, that even the atomic theory, which has long been useful as a working hypothesis, is going the way of the stage-coach, and other outworn expedients. Followed to its logical results, this theory leads to a dilemma, which was recently most aptly described by Dr. Wilhelm Mueller, a German scientist, in a recent issue of the Chicago *Tribune:*

"If the atom is indivisible it cannot occupy any space, for everything that fills space, no matter how small, can be thought divisible, and must be divisible *ad infinitum*. But, on the other hand, if the atom is really indivisible and does, therefore, occupy no space, it can never be a part, however small, of matter. 0 *plus* 0 *plus* 0 *plus* 0 . . . to infinity will always be equal to 0. The total is equal to the sum of its components. Inasmuch as the total, in this case matter, occupies space, that quality must essentially pertain to every part, however small, of the whole. The logical deduction would be that matter is composed of parts which are not matter, a theory which is obviously unsound."

In regard to the material body, and sin and sickness, Christian Science holds that these are false concepts of that same human mind, which the writer of the June article has shown is so prone to delusions, and that the real body is spiritual, and the real man is in perfect harmony, and can know no such discord as sin and sickness. But Christian Scientists do not deny the belief of a material body, and of sin and sickness in the human mind. Those are the delusions which the writer of the June article might well study, in order to eradicate them. The author of "Science and Health" has said very aptly on this question, on page 406:

"There are many species of insanity. All sin is insanity in different degrees. Sin is only spared from this classification because its method of madness is in consonance with common mortal belief. Every sort of sickness is a degree of insanity; that is, sickness is always hallucination. This view is not altered by the fact that it is not acknowledged or discovered to be so by those affected by it.

"There is a universal insanity, which mistakes fable for fact throughout the entire round of the material senses; but this general craze cannot, in a spiritual diagnosis, shield the individual case from the special name of insanity. Those unfortune people who are committed to insane asylums are only so many well-defined instances of the baneful effects of illusion on mortal minds and bodies."

Christian Scientists prefer to stay out of the quagmire of materialism. If Christian Science, as the writer of the June article admits, has "gathered its forces from all ranks of society," and "numbers its followers by hundreds of thousands," and if "they have healed the sick by hundreds of thousands," and "have poured balm into many a stricken heart," why should the writer stand outside and cavil at their views in regard to matter? If the "neuropsychopathic tendency" is alarmingly prevalent in modern society, Christian Scientists at least feel perfectly safe from it, and will be found ready in the future, as they have been in the past, to counteract and heal insanity in its various phases.

THE DISCOVERER AND FOUNDER OF CHRISTIAN SCIENCE.

AS far as the misconceptions of the writer touch Christian Scientists themselves, they may be dismissed as the work of an honest but mistaken investigator.

It is a pleasure, however, to read his dismissal of the old tale concerning a Dr. Quimby. This story was definitely settled in 1883, when the copyright of "Science and Health" was granted. So, too, is it

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

a satisfaction to note that the writer does not think that Bishop Berkeley suggested the teaching of Christian Science concerning matter.

But the assumption that "there are vast numbers who are rated as Christian Scientists, who know little of, and care less for, the theories of the founder," is calculated to deceive the general public.

We challenge the world to produce one instance of the demonstration of Christian Science that is not gathered, in Principle and rule, from Mrs. Eddy's book. Christian Science was never stated, written, or demonstrated, till Mrs. Eddy did all these. When her book appeared, the envious, would-be Christian Scientists, swarmed like bees to gather her hard-earned treasures into the hives of those who sting the Mother bee and steal her honey. Their books and practice prove their powerlessness—they do not heal. Her books and practice are so conspicuous for doing this, that they have aroused the world's attention, drawn a wonderful following, and stirred the envy of those who will not see the truth in them.

There are no Christian Scientists who do not study, and at least try to live according to the interpretation of the Scriptures contained in "Science and Health with Key to the Scriptures." The hundreds of thousands of Christian Scientists, to whom reference has already been made, are of one accord in their love and gratitude for the Discoverer and Founder of Christian Science, and any charge levelled at her is levelled at them; hence they must feel shocked at the assertion that she is worshipped as "Mother-God." One of our oldest divinity scholars, an ecclesiastic, employed the term Father-Mother God for Deity, as did also Theodore Parker. On the assumption that the writer of the June article has been misled in making this assertion, it becomes necessary to explain the actual meaning of the term he employs.

The title of Mother is an affectionate name which Christian Scientists love to apply to the Discoverer and Founder of Christian Science, out of a deep sense of gratitude to her for showing them the way to health and happiness. The term "Father-Mother God," it is needless to say, has no connection whatever with the author of "Science and Health with Key to the Scriptures." It is used merely to emphasize the completeness of the Godhead. The expression "all harmonious" is a paraphrase of "which art in heaven"—heaven, in Christian Science, being considered not a locality, but a state of consciousness which is harmonious.

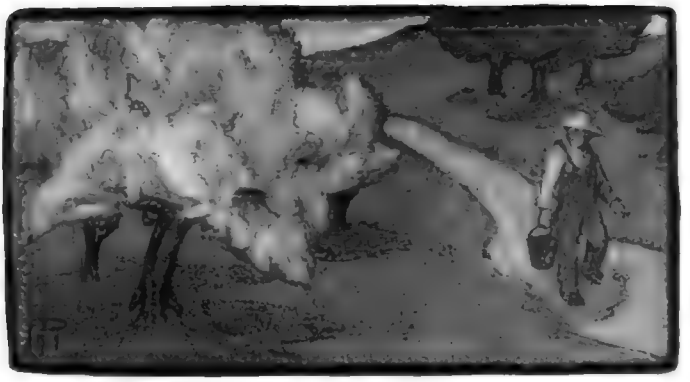
The reference to certain souvenir spoons has only this much basis in fact: The Founder did give permission to a citizen of Concord, N. H., to have her head engraved upon certain spoons; they were made for his benefit; Christian Scientists were asked to buy them, in order to help him. The Founder herself never received a cent from their sale.

Concerning the accusation that "Science and Health with Key to the Scriptures" is worshipped as superior in authority to the Bible, I need only say that the title of the book describes it sufficiently. It is a "Key to the Scriptures," and in the Christian Science Churches is always read after the Bible with correlative passages. Moreover, the first tenet of the Christian Science Church reads: "As adherents of Truth, we take the Scriptures for our guide to eternal life."

There are certain minor misconstructions which have found their way into the writer's article which deserve a word. Christian Scientists do not proclaim the healing of the sick as a religion *per se*, although the wonderful cures effected by Christian Science are apt to call public attention to that side of their religious activity. They are merely trying to follow in the footsteps of Christ and to obey His injunctions, one of which was "heal the sick." They are waiting for the whole of Christendom to resume this feature of early Christianity, and while they wait, they work.

I do not feel like criticising the writer's theory of the dual mind, but I cannot help reminding him, in this connection, of the verse from James i. 8: "A double-minded man is unstable in all his ways." And this is the kind of man Christian Scientists are trying to avoid. Will not the writer of the June article help Christian Scientists to be truly single minded and to live in the One Mind? Instead of writing about psychics, alienists, and consigning a great body of earnest brothers and sisters to the lunatic asylums, will he not declare for mental health and balance, and join them in their work towards a saner humanity, a more perfect brotherhood of man, and thus help usher in the Kingdom of Heaven on earth?

Digitized by Google
Original from UNIVERSITY OF MICHIGAN



THE MAKING OF A COUNTRY HOME.

By J. P. Mowbray ("J. P. M."),

Author of "A Journey to Nature."

With Photographic Illustrations by Gertrude Käsebier, and Head- and Tail-piece by Frances W. Delehanty.

CHAPTER VI.

THE DAY OF SMALL THINGS.

JOHN had been guided in his selection of a site by an architectural book that had commended the brow of a hill with great enthusiasm, because it was dry and healthy and always had a current of fresh air. Now that he found himself on the brow of a hill, the dryness of the site began to worry him. There was plenty of water at the foot of the hill, but it would not run up, and that which fell at the top had a lively haste to run down. He had already learned that one cannot have lawns without water, and that the gardens in the neighborhood, especially on a slope, were apt to burn up. It was becoming very plain to him that his landscape gardening was a much bigger problem than he had dreamed of, and his vernal prospects of an embowered and verdant villa were beginning to assume some of the sere and yellow aspects of the country about him.

One Sunday morning Mr. Swarthout came in upon him contemplating his scraggly grass-plot rather ruefully.

"You don't keep it cut close enough," said Mr. Swarthout.

"Don't I?" responded John. "Look over there along the fence. I've blistered my hands shaving it down to the roots, but it is just as yellow and scrawny as ever. What the place wants, Mr. Swarthout, is water."

"Gits as much water as any o' the places, don't it?"

"Yes, that's the trouble—it wants more than the other places, to suit me."

"Seems to me it looks all right for the season. Hes all the water natur' allows it, don't it?"

Just then Mr. Braddock drove up and entered the grounds, carrying a large cat in his arms and smiling benignantly as he stroked it.

"We call her Medusa," said Mr. Braddock, lifting the long hair of the cat's head between his thumb and finger. "You know the myth. There is a singular relation between the length of a cat's hair and its animal food. You will have to feed her on meat occasionally."

Mr. Swarthout walked a step or two away with indifferent contempt. Then he turned and said: "You don't see anything the matter with this 'ere grass, do you, Mr. Braddock?"

Mr. Braddock stroked the cat and smiled as he replied:

"Going to make lawns, eh? I see. We

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

all go through it. That's why I brought you a cat. It's always well to begin lawns with a cat. Moles, you know—they plough them up faster than you can roll them down. Nothing like a cat for moles. Just feel that hair. Mole diet."

"Mr. Dennison has got a notion that God Almighty don't know how much water's wanted on this land," said Mr. Swarthout, "and he's thinkin' about regulatin' it."

"Ah," remarked Mr. Braddock, suppressing with the back of his hand an inclination to guffaw, "what you're thinking about is an artesian well. We have to go through that, too, when we improve. Mine cost me—let me see—$2.50 a foot. You've heard of speculators in the city watering their stock"—and he chuckled as he said it—"well, sir, when we speculate in the country we begin by watering the soil. There isn't much difference."

"How many feet is your artesian well?" asked John.

Mr. Braddock thought a moment, stroked his cat, and replied:

"One hundred or thereabout, and the windmill—let me see—that cost me seventy-five dollars, I think."

"Three hundred and twenty-five dollars for a well," said John contemplatively. "But you have plenty of water, at all events?"

"Water?" said Mr. Braddock. "Certainly not. Water doesn't follow by any means—never does, I assure you, unless you go a thousand feet. But the windmill is quite an ornament when there is a gale. After artesians we always try water-rams. They are less expensive. Think of trying artesians?"

"It's dead agin' Providence," said Mr. Swarthout. "I've been here sixty year, and I never had nothin' but a good curb well with a windlass, and there's never been any trouble on my place about water, 'cepting there's a long drought, and then I guess we ain't no worse off than other people."

Mr. Braddock pressed his hand over his mouth a moment. "I'll just take Medusa in to Mrs. Dennison," he said, "and tell her about the moles." Then he remembered something. "There's an auction up at Sneider's next week. You might pick up a second-hand ram there, if you don't go in for artesians." And he went off to the house with what to John was very much like a suppressed chuckle.

This conversation left John Dennison sorely perplexed about the water problem. Mart insisted that it was a waste of time to think about having an English lawn. It would ruin any man who was not a millionaire, for the soil wasn't "kalkilated" for it.

Finally John put ten pounds of earth from his hill-top into a box and sent it by express to an agricultural chemist whom he had known in school days, and with it a request that he would tell him what the soil needed to make it retain its moisture so that grass would grow luxuriously upon it. The letter he received in reply was as follows:

"MY DEAR OLD FRIEND: I was delighted to hear from you once more, and surprised to learn that you have gone to Rockland County to live. I turned your box of soil into my back garden without examining it, for that was not necessary when I knew where you were and read your description of the site. I have lived in that vicinity myself. The trouble with lawns up there is this: on most of the uplands and slopes there is a thin alluvium, or detritus, on a crust of friable and porous red sandstone that takes water like a sponge. The soil is comminuted red-rock with vegetable mold, and there is little or no hydrous aluminum silicate (common clay) in it. If you will take a small piece of ground and treat it with blue clay (you can get plenty of it at the Haverstraw brickyards), you will find that it will stop the pores of the rock and your subsoil will retain the moisture, so that instead of erecting a tank you can convert the soil itself into a tank. Let me know the result of the experiment. Etc., etc."

Lucy met John at the depot a day or two later, in her phaeton. He saw her from the car window before the train stopped. She had driven fearlessly in among the fine equipages, and both she and the white horse looked as independent as any of them. He thought she might have kept a little in the rear with her humble turnout, but she was the first one in the line, and the old white horse really seemed to be trying to hold his head high and paw the earth with a sudden sense of *éclat*.

As John climbed into the phaeton, Lucy said: "You look as serious as if you were going to a funeral; what is on your mind now?"

"Hydrous aluminum silicate," said John, with grave deliberation. "It's a terrible responsibility. Let me get this bundle under the seat—it's lawn seed."

"There was a box came for you to-day from Haverstraw. I asked Mart what it was and he said, 'Jedging from the heft of it, it must be gold.'"

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

"'WE CALL HER MEDUSA,' SAID MR. BRADDOCK, LIFTING THE LONG HAIR OF THE CAT'S HEAD BETWEEN HIS THUMB AND FINGER."

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

"Ha, ha!" said John, "it's hydrous aluminum silicate."

"Mercy," ejaculated Lucy. "Is it explosive?"

"No," said John, "it's blue clay. I am going to make a little experiment. It wouldn't interest you."

"Oh, it's a secret!"

"Yes, one of those secrets that tremble on a man's lips, unuttered, till he gets the hang of it himself. I see Sneider's auction is posted in the depot. I want you to drive up there, my dear, and see if you can pick me up a stone-boat."

"A stone *boat?*"

"No, not a stone *boat*, but a *stone*-boat."

"I never heard of such a thing. Are you going to put your hydrous what-do-you-call-it in it?"

"Well, there's a close connection—it's part of the secret."

"What do you suppose the Sneiders are selling out for? Are they bankrupt? Heavens, perhaps they've been trying to make lawns."

Then John laughed. "It seems to be the custom up here," he said, "whenever the old folks die, for the young ones to sell out. As the Sneiders are old Revolutionary stock, and their home is a hundred and fifty years old, there must be a lot of venerable truck there. You had better take some money with you."

For days after this Lucy watched John out of the corner of her eye without disturbing him with any questions. She saw him digging holes in all directions on the grounds, piling up red dirt and pulling out chunks of red stone. She noticed that he had laid out a little space ten feet square, that looked like a new cemetery lot, and watched it morning and evening with mysterious care. He had dug out the soil, refilled the space with clay and loam and stable manure, seeded it down carefully, and, not having a roller, had smoothed it with a board upon which she saw him, from her window, dancing what she supposed to be an idiotic jig that called for some reproof.

"LUCY WATCHED JOHN OUT OF THE CORNER OF HER EYE."

Digitized by Google Original from UNIVERSITY OF MICHIGAN

"THE STOLID COMPLACENCY OF THE COUNTRY FOLK."

"John," she said, "why don't you exercise in the barn and get a sand-bag; it would be much more becoming than trying to dance in the front yard where everybody can see you, for you never were a good dancer."

John laughed heartily. "Dance!" he said; "I am going to make that whole front space dance with God's own green gladness. You wait. I'll make our place look, among these country deserts, like an emerald set among a lot of yellow rhinestones. Don't you forget the stone-boat."

A day or two later, Lucy took Mart with her and drove up the road to the Sneider auction. It was her first experience with a country vendue, and was full of homely interest. All the near neighbors had gathered with their vehicles, and most of them were wandering about the grounds and house with a dull curiosity. No sooner had Mart tied the horse and Lucy had entered the grounds than she was accosted by a young woman whose youth and dress were in startling contrast to the homely and careless rusticity of the people about her.

"I beg your pardon, Mrs. Dennison," she said, "but I'm so glad you came. I am May Braddock. Pa has told me all about you. Pa is peculiar, you know. How is Medusa? I ought to have called on you before. Pa doesn't give cats to everybody. I suppose you've noticed that he is peculiar?"

Lucy nodded as if she conceded that fact without the use of words.

"Yes, Pa told me that your husband was going to make lawns—isn't it sad?"

"I don't see anything sad about it," said Lucy. "It's part of the improvements."

"And so it is true that you are really going to improve. I was in hopes that it was idle gossip. I wish you would let me come and talk you out of it. You see there are so few city folk come up here that stay—they always begin to improve and then go away."

Lucy laughed. "If my husband goes too far, perhaps I'll avail myself of your eloquence. As he has only reached the lawn stage, perhaps I can manage him alone."

"And do you care for old things?"

"Do you mean in husbands?"

"No," said Miss Braddock, with unperturbed seriousness; "I mean in auctions."

"I have never been to an auction before

Digitized by Google Original from UNIVERSITY OF MICHIGAN

in my life," replied Lucy. "Is it confined to old things?"

"Entirely," said Miss Braddock, lowering her voice. "Just look about you. I am the only young thing you will ever see at the auctions up here. That is why I am so glad you came."

"I suppose they all expect to pick up something new."

"Oh, dear, no. The same things at all the auctions. They pass 'round the country in that way. New things wouldn't stand it. I've got an itinerary of the Felter candlesticks ever since the first auction in the De Ronde homestead. They've got around here at last, and I'm going to try and get them. You didn't come for the candlesticks, did you?"

"No," replied Lucy. "I'm after a boat."

"A boat," repeated her companion. "I didn't notice any boat on the list. What kind of a boat? Is it china?"

"No," said Lucy. "It's stone."

"Then come right in and we'll look at the crockery before Pa begins selling. I suppose it's a butter-boat."

May Braddock, straight, lithe, and trim, had a mature vivacity in singular contrast with the stolid complacency of the country folk about her. She had graduated at a Normal School and there was something in her gray eyes and the gold spectacles that covered them that suggested a gentle superiority of acquirement.

"There's Pa now," she said, as they entered the house. "He's talking to Pop Swarthout. I'll ask him where the candlesticks are."

"Good morning, Mrs. Dennison," said the lawyer, who was the centre of a group of rustics. "How are the birds?"

Lucy, who from the first had been inclined to look upon Mr. Braddock as slightly demented and dangerously irrelevant, stared at his daughter for an explanation.

"I refer to the cat, Medusa," the lawyer said. "You know I told you she would exterminate the moles, but I fear I neglected to tell you that she will exterminate the birds as well." And then he put the back of his hand to his mouth, as if suppressing a practical joke.

"Pa," said Miss Braddock, with the slightest iciness of tone, "where have you put the brass candlesticks?"

"Doubtless they are in the parlor lot." And looking at Mrs. Dennison, he added: "My daughter is an antiquarian, you know."

"Antiquary, Pa," said Miss Braddock, turning away.

"Quite right, quite right, my dear," said her father. "We are all antiquaries on these occasions, Mrs. Dennison. Did you find the cat take kindly to her new home?"

"Oh, the cat is all right, Mr. Braddock," said Lucy. "Where have you got the boat?"

This piece of irrelevancy on the part of Lucy appeared to be so much in his own line that he leaned toward her with an extra air of benignity, and said: "Exactly—the boat—is there a boat on the schedule?"

"Yes, in the stone-ware, Pa," said Miss Braddock, correctively.

"Precisely," replied the lawyer. "It is undoubtedly moored in the china closet in the kitchen."

"And the windlass bed, Pa; is that to be put up to-day—the bed that George Washington slept on?" Mr. Braddock looked at the schedule. "One bundle bedposts, mahogany, with slats and bed wrench. Garret."

"That's it," broke in Pop Swarthout. "I helped tie it up when Molly Concklin sold out in '58 and Job Felter bought it in. It hain't been sot up since, but I guess some of the slats was burnt when the Felters sold out in '64. I allers said George must hev had chilblains on his back if he slept on them sticks."

"There's no atmosphere about these people," said May Braddock, as she pulled Lucy away. "That historic bedstead will be stowed away in some other garret for a generation, unless I can rescue it to-day."

Just then Mart came in and informed Lucy that he had found the boat. It was in the stable—would she like to take a look at it?—and as Mr. Braddock's auctioneer-voice was beginning to sound, she left Miss Braddock and went with Mart to the carriage-house. As she followed him with her skirts lifted, she saw a number of men standing around in various attitudes and groups of indifferent patience, much as if they were at a funeral. They were waiting for the sale to reach the live-stock and farm implements, to which alone the masculine interest attached.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

"'I AM MAY BRADDOCK.'"

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

Mart made his way through barrels and bran and lumber and rubbish to a pile of débris in the carriage-house, moving old shafts and broken wheelbarrows and stove-pipe, occasionally remarking as he did so: "Look out for the wagon grease, mum," or "Mind the barbed wire, mum," and pointed to an old and worn board with a ring-bolt in it and well smeared with yellow, dried mud. It stood on end against the siding. "There you are, mum, and a good one it is, too."

"What?" asked Lucy.

"The stun-boat."

"That old board? Why, it's all frayed out on the edges and in a filthy condition. I'm not going to spend John's money on such rubbish."

Standing close beside it was an enormous and rickety old pine bureau with five awry drawers. It was stained or painted with yellow ochre, had shrunk at the seams, and had lost most of its knobs. It seemed to fascinate Mart. He pulled the drawers out with delight and herculean effort, so that he had to kick them back with his boot. It had evidently been sent to the barn for kindling-wood. As Lucy expressed a strong desire to get out of the dreadful place, Mart opened the way for her again, looking back longingly at the old bureau and remarking as they went along: "Take care of the hole in the floor, mum," and "Look out for the tar, mum."

When she reached the house again the auction sale had brought everybody into the kitchen, and she heard Mr. Braddock's voice saying: "Now, then, what am I bid for the dinner service—soup plates, cups and saucers, etc., and three old blue platters—what am I offered for the lot?"

"Thirty cents," said Mrs. Swarthout, promptly.

"Fifty," said Miss Braddock, looking at Mrs. Swarthout as if that lady ought to go to the foot of the class.

"I am offered fifty cents," smiled the auctioneer. "As you are practical people and these things were made for service, I trust that you will save them from going to the Braddock mu-se-*um*."

"Mu-*se*-um, Pa," said Miss Braddock.

Lucy had scarcely reached her phaeton when May Braddock came after her. "Must you go, dear?" she said. "I hope we shall know each other better. I've got the platters."

"So glad," said Lucy; "but, dear, what makes you correct your father's pronunciation in public? It's so odd, don't you know."

"Oh, he prefers it, and taught me to do it. He mispronounces purposely so as to trot out my education. You know, I told you he was peculiar."

When John came home he was regaled with a most amusing account of the auction, but when he asked for the stone-boat his wife informed him that the old board was too entirely ridiculous and that she didn't buy the rubbish. But Mart told him, when they were in the workshop, that *he* had bought it quietly and was going up with the wagon to fetch it. Not long after this Lucy saw him drive in, and the most conspicuous object in the wagon was the old yellow bureau, with the stone-boat leaning against it. Such stubborn infatuation on the part of the men piqued her a little, and when she saw John sliding about the grounds on that absurd board, driving the white horse with exaggerated delight, while Mart walked beside him and shared the responsibility, her anxiety for her husband's mental equilibrium increased. Nor were his explanations at all soothing. "My dear," he would say, "the basis of all improvements in this country is the stone-boat. With that everything is possible. You wait. Get up, there; whoa. Get up." And John went sliding off across the grass, leaving a wake of crushed sod behind him.

"I do believe," she said, as he came back shoutingly, with Mart beside him, "that you will want me next to drive the dreadful thing to the depot for you."

"Well, if you do," said John, "you'll be sure to be in the first rank with it, ahead of everybody else."

Lucy's emotion and perplexity were expressed in one sentence. She involuntarily clasped her hands and exclaimed: "What *are* you going to do, John?"

And John, looking admiringly after the stone-boat that, under Mart's guidance, was sliding back to the barn, replied:

"You just wait."

It is no disparagement of Lucy's discernment to say that she could not look through all the coarse and dirty preparations to the idea which was in John's mind. Entitled to respect (as she undoubtedly was) for being an exemplary, ordinary person, and in that regard quite the equal of her excellent hus-

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

"'I'VE GOT AN ITINERARY OF THE FELTER CANDLESTICKS EVER SINCE THE FIRST AUCTION IN THE DE RONDE HOMESTEAD.'"

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

band, she was, nevertheless, a woman, and somewhat inclined, as all women are, to jump to ideal conclusions and not wade through red mud to their accomplishment.

"JOHN HAD HIRED A LABORER."

There was a month of devastating "ruction" that came perilously near to bringing on a matrimonial separation, and Lucy always attributed what she called her misfortune to that stone-boat. She may not have said so, but in her secret heart she dated many of her discomforts from the arrival of that accursed utensil. Nor were any efforts of John's logic capable of removing her antipathy to it. He tried to explain to her that in a country of many stones it would be impossible to move them by lifting them into a wagon and out again. But they could be rolled easily upon a flat stone-boat and pulled anywhere. To which Lucy invariably replied: "But why move them at all?" Upon which John fell into his usual complacency and said: "You just wait."

She saw with unconcealed consternation that John had hired a laborer who was digging an unsightly trench across the entire front of the property and piling up a long mound of red dirt. One or two rough planks were laid across at the gate, for the women to walk upon. It was no relief to be told by John that the red dirt would make the finest kind of a walk when it got hard, and she saw that he was piling it up in mounds along the only available path they had. Nor was that the limit of John's irrepressible dementia—he was pulling the stones out of the great wall and heaping them up parallel to his trench, and look out when she would, Lucy was sure to see Mart sliding across the grounds on the stone-boat and wearing the grass into smooth and ghastly wakes. She had resolved to ask no more questions, and tried to assume a superior indifference, as when one condones a failing with affection. But when she saw an enormous hole, thirty feet long and twelve feet wide, opening at the north of the house, and men with picks and shovels heaping up another pyramid of red soil, she went off to Miss Braddock and began to form an entirely new intimacy of condolence with that lively and spectacled antiquary, who opened her heart to her and told her of all the fresh auctions in the county, and took her off on long excursions in her basket-phaeton.

One Sunday morning, as John and his wife were eating their breakfast with a great deal more luxury and happiness than they seemed to be aware of, a tremendous summer shower came up, and John and Mart rushed out to keep the water from pouring into their big hole. In less than five minutes Mart was driving the white horse, with the stone-boat, through the summer storm to the rescue. Lucy and Harold stood at the south window, a little tremu-

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

lously, and watched the water come down in pelting sheets, and listened to the peals of thunder rolling off in the Ramapo Mountains. But while they stood there the storm subsided as quickly as it came. The yellow sun shone out, making everything glisten and flash, and the birds began to rejoice from all the trees and shrubs. Lucy caught Harold by the hand and sallied out to see if her flowers had been uprooted by the deluge. Coming around in the narrow path at the south of the house to the front grounds, she saw John and Mart standing there in attitudes of imbecile dismay, and the white horse, still dripping with water, was patiently waiting to see what would next occur. John pointed, without saying anything, to the path that led to the gate, and one glance told Lucy what had happened. The mounds of red dirt had been beaten down and liquefied into rivers of chocolate that inundated everything. A miry slough extended from the house to the gate, and on either side the worn tracks of the stone-boat glimmered now with red puddles. The whole aspect of the place was enough to make a tidy woman heartsick.

But before she could arrange that feminine privilege, a vehicle drove up in the road before the gate, the driver jumped down and assisted an old lady across the planks to the entrance-way, and Lucy, with a genuine burst of tenderness and consternation, cried:

"Heavens—mother!"

For a moment there was a speechless tableau. The old lady at the gate was staring about her with that soft and submissive expression that Lucy had often seen before upon her dear old face when she was singing:

> "On Jordan's stormy banks I stand,
> And cast a wistful eye."

John had his rubber boots on, and calling out lustily: "Hold on a minute, madam," began to wade to the gate with a proper sense of the crisis. He succeeded in reaching the old lady and her bundles, and was seen making violent, apologetic gestures. A moment later he called out to Mart: "Fetch the stone-boat, old man." Mart grasped the situation in an instant He rushed into the house, brought out a kitchen chair, placed it on the stone-boat, and then getting aboard himself, slid off to the rescue. Then it was that the old lady, with some persuasion, was induced to mount the extraordinary vehicle, and with her feet drawn up on the rungs of the chair, and

MART.

her skirts well gathered about her ankles, she came smoothly up the path as softly as the approach of twilight, John and Mart on either side plowing through the mud with the conscious pride of a guard of honor.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

Meanwhile Lucy, between hysterical laughter and tears, was protesting and explaining. "You see, ma, it's the improvements. John could just as well have hitched up the phaeton, but he is so self-willed. Do come in, and we will see if we can find a place where there isn't any red mud."

As the door closed on this incident, the driver in the road, who had been standing on his box watching the operation, suddenly whipped up his horses and went furiously off, as if anxious to get to the depot while it was all fresh in his mind, and once there doubtless told, with such a fellow's disregard of accuracy, how they "slid her up and backed her in."

Such episodes, it may be remarked, never come singly, and in this respect they are akin to misfortunes. Scarcely had the mother and her bundles been safely housed than another vehicle drove up. This time it was a buggy, much mud-bespattered, and the driver waved a piece of paper in the air without attempting to come in. When Mart had obtained it, what was John's astonishment to find that it was a telegram which read as follows :

"JOHN DENNISON:
"Meet us at the 9.40 train. Invitation accepted. Have brought friend. HOLCOMB."

John looked at the announcement with stupid amazement. His mind traveled back to that morning on the ferryboat when he had met Holcomb, and, as a country gentleman, triumphed over him and shot vague invitations at him. That piece of insensate folly had now come home to roost, bringing a friend with it.

"Nine-forty," he said. "It is now a quarter past ten."

Telegrams in the country are not delivered promptly. The visitors must have come on the same train with the mother, and would be along presently.

With the profound sense of the ordinary man, which in John so often took the place of genius, he set his teeth and braced himself to the situation. With the telegram in his hand he announced to his wife, who was already showing the house to her mother, that "more company was coming."

To his astonishment this information, which he tried his utmost to impart with an air of good nature, went off in the wrong direction.

"More company, John? I hope you do not consider mother company."

This was so crass and unwarranted an interpretation that John gave way to annoyance. "I am not considering mother at all," he said.

Lucy gave a little gasp that ran into something like a sob.

"Of course, you're not considering mother—you're just acting like a brute."

And mother, with supreme indifference, remarked: "Oh, don't consider me. I didn't expect any consideration when I came."

This speech and the crushed air of injured innocence in both women threatened to break the back of the ordinary man. He threw the telegram down a little defiantly, saying :

"It's your friend Holcomb, not mine. And he's brought some other friend of yours with him. They will probably stay a month. There, I hear them shouting for you now."

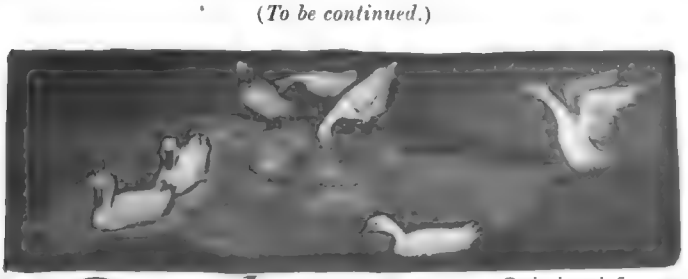
Then he strode out.

As he reached the back porch, torn with many conflicting emotions, he came upon Medusa, fat, sleek, and unperturbed, lying in the sun. She looked at him with calm contempt. Some feathers of a young oriole that she had just eaten were fluttering about.

John did something which was certainly without excuse and quite beneath the dignity of an ordinary man.

He kicked Medusa violently with his rubber boot.

(*To be continued.*)



Digitized by Google
Original from UNIVERSITY OF MICHIGAN

A MARQUIS IN THE BAD LANDS.

By G. W. Ogden.

Illustrated from Photographs.

IN the latter eighties Little Missouri was a station on the Northern Pacific Railway, in North Dakota, near the eastern Montana line, from which ranchers shipped a few cars of stock yearly. Cattle rustlers sometimes rode down there and made things lively for a night, and deputy sheriffs dropped their bridle reins on the ground to put in a fresh stock of ammunition when they chanced to pass Buck Kestler's store. The deputy sheriffs, in time, however, took to buying cartridges wholesale at Miles City and the rustlers quit patronizing the saloon, so it shut up, and the glittering beer sign beside the door grew rusty and a target for the stray cowboys who passed at long intervals.

Little Missouri passed from a nap into a deep slumber. The only sign of life was around the cabin of Widow Roberts, who kept a bit of land as big as a bed-quilt, green with the water of the only spring issuing from the palm of the greedy desert's hand in many miles. There appeared to be no excuse for her lingering on, except, perhaps, the grave just back of her cabin with a big chunk of limestone on top of it—memory of Custer's famous battle. Roberts was in the grave, fast asleep as the town of Little Missouri.

A telegraph operator, thin, lonesome, and pale, spent his days with his feet on the table in the depot and his gaze fixed on the railroad where it swept around a butte at the east. He had no duties save to report to headquarters the passing of occasional freights and the limited which flitted like a shadow from the east in the morning and from the west in the afternoon.

The station lay in a triangular valley of several hundred acres in extent. At the eastern point the railroad entered and on the western border the river, the Little Missouri, wound its erratic course along a bed chiselled in stone and scooped from the ash-colored sand. A mesa, thinly covered with grass, ended suddenly in a sheer wall at the north, and along the southern boundary of the vale ran an irregular chain of hills. From the mesa one could see Chimney Butte, thirty miles to the southward, lifting its black top above the range, and away in the northwest the track of the river could be followed by the dark line of willows and scrub cottonwoods along its shores. The face of the valley was a carpet

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

THE MARQUIS'S ABATTOIR AT MEDORA.

Digitized by Google
Original from
UNIVERSITY OF MICHIGAN

of alkaline soil which plagued the nostrils and burned the eyes; all around were the hills, heaving in eternal yearning their cracked and scarred breasts to heaven.

One day, however, the operator took his feet down from the table and pressed his face to the window-pane. Mrs. Roberts, with apron over her head, made a visor of her hand and gaped in astonishment. The limited from the east was stopping, something it had not done in more than two years.

The Northern Pacific's land agent (the operator knew him), accompanied by a stranger, got off the rear sleeper. Four great trunks and half a dozen hand-bags were unloaded, the train went on—and the Marquis de Mores stood looking over the unpromising sweep of rugged hills and white valley, across which he was to follow the evanescent shadow of a winged dream. He had closed a "deal" with the agent whereby he became possessed of 20,000 acres of railroad land. Some say he had never seen the land before that day, but had purchased it on the agent's solemn declaration that it was fertile as Nile's valley and beautiful as the rose gardens of Araby. He saw an untamed desert with little clumps of sage-brush growing here and there. The agent said anything would grow in soil which would nourish a sage-brush. That is one of the cheerful myths of the West.

The Marquis de Mores may have been disappointed with Little Missouri. If he was, he did not show it. He stood beside his possessions on the depot platform, proud, tall, dark, handsome. His brown beard was trimmed to a point, his toilet was perfect; about him there appeared an air of superiority, such as heroes in romances always have and heroes out of them are seldom endowed with. He had invaded the West with a great plan and a million dollars. The plan was his; the money came from his father-in-law, Banker Von Hoffman, of New York. De Mores proposed to establish in the Bad Lands an immense fresh-meat industry to compete with the packing-houses of Chicago, Omaha, and Kansas City. His scheme was to raise cattle on his own ranch, dress their carcasses in his own packing-house, and ship the finished product to the East instead of sending the live beasts there to be slaughtered. The first thing necessary to the success of this plan, according to the Frenchman's idea, was to fence his 20,000 acres about with barbed wire. So he had no sooner housed his belongings than he set a surveyor at work running lines; and a corps of fence builders after him planting posts and stretching wire. Within a week some men came along on a hand-car, took down the board upon which the station's name was painted, and put up a new one. With this simple ceremony Little Missouri went off the map of North Dakota and Medora came on. The marquis, so the land agent said, had rechristened the place, naming it after his wife.

"The dude of a Frenchman," as he came to be called, took up quarters in a cabin near the river, engaged a round-up cook, and readily adopted part of the habits of a plainsman. He could not overcome the moral defect of brushing his teeth and polishing his shoes, so he did not rise very rapidly in the estimation of his few neighbors. The fence building was pushed, and soon miles of bristling wire hemmed in what had for all time before been free land. One of the first to meet this innovation into the Bad Lands was a hunter named Frank O'Donnell. He was heading in for the river one day and almost fell from his horse in astonishment when he saw the new fence. So great was his surprise he could not call to mind any appropriate oaths. He cut the wire and rode on toward Medora in silence. They told him there who was responsible for the breach of Bad Lands etiquette and he called on the marquis.

"Say, pardner, what in the —— do you mean by puttin' up that fence?" he demanded, with an injured air. De Mores replied that he was merely fencing his own property, as was customary in civilized lands.

"Well, I just cut a gap in the blankety-blank thing up yonder on the hill," said the hunter defiantly; "an' that's the way I'll treat your fence whenever it comes in my way."

"The next time you cut my fence," De Mores said, without changing color or showing the least sign of anger, "I'll shoot you on sight."

O'Donnell's jaw fell, and he looked in amazement from one to another of the men who stood around. Then he mounted his horse and rode away.

Bred to a soldier's life, De Mores could not, for a long time, reconcile himself to the Western manner of settling disputes at long range with fire-arms. He considered it altogether ungentlemanly and unsatisfac-

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

THE MARQUIS DE MORES'S RESIDENCE, MEDORA. LITTLE MISSOURI IN FOREGROUND.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

tory. In a subsequent encounter with O'Donnell, the marquis and the hunter exchanged several shots without effect.

In a frenzy of rage the nobleman swung his horse about and galloped toward the camp, some miles distant. O'Donnell, whooping and shooting, pursued, imagining his adversary in retreat. As they neared Medora, O'Donnell stopped on the top of the hill and De Mores went on. Arriving at camp, the Frenchman went into his tent and presently emerged with a rapier. With this in hand he made for O'Donnell.

Amazement at the sight of the long, sharp sword appeared to take from the hunter all recollection of his pistols. "Ex—cuse me," he said, digging his heels into the ribs of his bronco and hugging the animal's neck to avoid the thrust he momentarily expected to feel between his shoulder blades. He escaped unharmed by reason of his superior skill in guiding his horse over the broken ground.

The marquis had, as the building progressed, bought herds of cattle and turned them in upon his dusty acres guarded by the wire fences. Men rode up and down the lines of wire with rifles across their saddle-horns, and the packing-house stood ready against the time when the cattle should be rounded up and driven in.

For a long time the people of Montana looked upon the marquis as a joke—he took himself and his plans so seriously and carried his aristocratic notions so far. He could never understand why etiquette of the plains demanded that one must pass the time of day with, or inquire into the state of health of, every man he met. De Mores used to ride on when greeted with the solicitous "How d'y, stranger," without deigning a reply. When this extravagant breach of manners was made, the cattleman ignored would pull his horse up, put his left hand on the back of his saddle, draw his left foot from the stirrup, squirm around until his thigh rested across the seat of the saddle, screw his face about in the marquis's direction—and swear.

Roly Boly Smith, who used to be a school-teacher, according to his own report, said the marquis was from a country where poor men and skunks took off their hats to the nobility, whereat everybody laughed. Jerry Cleveland, who had been to Omaha, said the marquis looked like "one of them blanked painless dentists," from which opinion there was not a dissenting vote.

It soon became known that the "Dude Frenchman" was preparing to carry out some other wild scheme at Medora. The railroad company sent a gang of men down and began building a long side-track. The saloon-keeper got a tip on what was moving, and the old battered beer sign gave way to a new one, the dust was swept from the bar, and business went on at an encouraging rate. Car-load upon car-load of lumber and machinery came in on the new side-track, masons and carpenters made their appearance, and the story went abroad that a crazy Frenchman was building a big slaughter-house on the bank of the river at Medora. Cattlemen rode in from Chimney Butte and far-away places to see the wonder. Rustlers around their camp-fires in lonely gorges cursed the man who dared buy part of the Bad Lands and build long lines of wire fence. But the work on the packing-house went on, and one day masons began to lay the foundation for a dwelling across the river. They said it was to be a mansion. So, by comparison with anything in the Bad Lands, it was when finished.

It cost the builder probably ten thousand dollars. He had it painted a dark green, doubtless with the thought of breaking the everlasting white of the alkaline soil. There was not a tree near it, not a spear of grass. The marquis planted ornamental shrubs and blue-grass, but the parched palate of the desert sapped the roots dry, and the only green on the hillside was the house itself.

Then "the madam" came.

She was wonderfully beautiful to those men of the Northwest. Tall, dark-haired, slender, and in her cheeks the pink of those strange little roses one finds in the hill-lands, clinging to the earth. She was too pale, they said, paler than the sands of the valley; but she used to sing when she first went to live in the green mansion, so they concluded she was happy. She was always "the madam"; he was the "markee." Never Mr. de Mores, De Mores, or anything but "markee." Few knew what a marquis was, but all took a sort of pride in having one around. They used to stroll about together of evenings at first, he marching along proudly with his great broad shoulders and more than six feet of height, she leaning with tender confidence upon his arm.

The few who remain at Medora now speak

Digitized by Google Original from UNIVERSITY OF MICHIGAN

THE CHAPEL WAS BUILT BY THE MARQUISE DE MORES, THE RESIDENCE BY THE BARONESS VON HOFFMAN. THE LATTER WAS THE RESIDENCE OF VICE-PRESIDENT VAN DRIESCHE.

with reverence of "the madam." She was one of the things which came into their country that they were unable to understand, a strain of romance in their unchanging lives. Medora is a needle-point dot on the map of the Northern Pacific Railroad now and the trains roaring past hurl great clouds of white dust against its roofs. All of its past, save memories and empty houses, is gone, but the recollection of "the madam" is dear and sacred to those who linger there in the echoless solitude.

The marquis they could fathom. To them he was cold, unresponsive, resentful, high-handed, brave. To the world beyond the Bad Lands he was bombastic, theatrical, courageous, gullible. Had he followed the example of the New England farmer and thrown all the gold bricks he purchased into the well, he would have filled the deepest artesian in the Northwest.

In the still grandeur of her desert home, more lonely because there was nothing in it sympathetic with its surroundings, the marquise. delicately bred, lived. At the foot of the butte was the river; beyond its crest the terror and mystery of unmeasured reaches of hill and plain. She had servants to fetch and take and a romantic, reckless husband, who clung tenaciously to the dim trail of fortune wavering across the country's face. "The madam" had not been long in the Bad Lands when the busy masons and carpenters were set to work again—this time at building a little brick church close up against the wall of the mesa and not far from the slaughter-house. It was soon finished and surmounted by a little gilt cross. A priest came from Miles City once a month and celebrated mass there. "The madam" was the sole worshipper. She built the church with her own money, and it was her only solace when the dreadful spectres of loneliness and anxiety began to make an abiding place in her heart. She would have a servant accompany her, and the bitterest storms of snow and wind sweeping down from the northwest could not chill her religious fervor.

"I reckon she thought," said a plainsman, speaking of it, "that 'cause that there mansion was so fur from anywheres, God couldn't even hear her when she prayed there."

The marquis could ride as well and shoot as well as any cowboy or cattle rustler in

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

the country. Those accomplishments won him a certain amount of consideration. He was gallant, courteous, and devoted to his wife, although he appeared blind to the fact that the anxious life in the desert was a load almost too heavy for her to bear. It was this devotion which led to the people of Medora receiving their first introduction to the marquis in fighting mood.

A certain "Bad Man" Flannigan (who recently completed a term in the penitentiary and now lives in North Dakota), undertook one day to forestall the evolution of events and wipe Medora off the map. He had a grievance against the inhabitants. So he descended from the east-bound passenger train one Sunday afternoon, took possession of the depot, drove the telegraph operator out, and proceeded to amuse himself by clicking the keys.

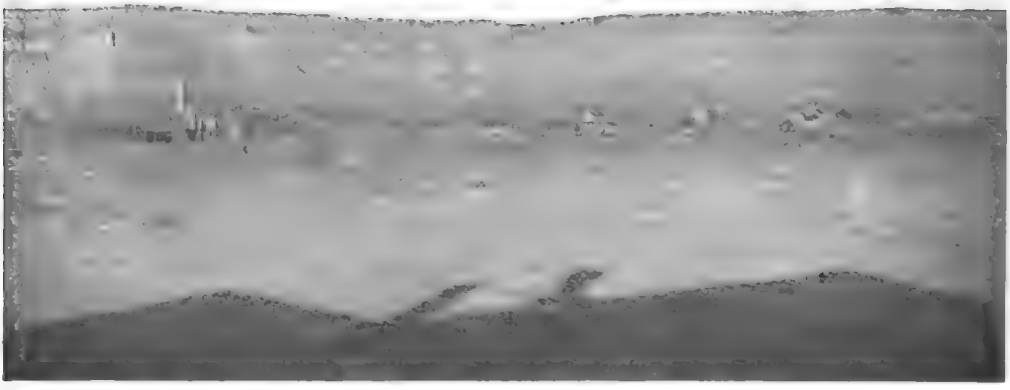
Three weeks before, "Bad Man" Flannigan had been "on a tear" at Medora. He wandered off toward the river and went to sleep in the weeds. Some of the citizens found him and roached his hair with a pair of sheep-shears. That is, they clipped it close on the sides of his head and left it long on top. As the bad man's hair naturally stood on end, when he awoke he thought he was a Sioux chief. He was not of a romantic stamp, as a real bad man should be. Short was Flannigan, red-faced, sandy-haired, crooked-nosed, alkali-stained.

Satisfied at length that he had succeeded in causing a smash-up somewhere along the railroad, by his industrious working of the instruments, Flannigan started out to settle his bill against the town. As he went out of the depot to the platform, he saw half a dozen men, headed by the telegraph operator, coming toward him. It was Flannigan's yell that made him famous. When he saw the approaching delegation he let go a string of yells, putting in the punctuation marks with his big revolver. The men retreated hurriedly and Flannigan intrenched himself in a ditch beside the railroad, from which he could sweep the entire village. There wasn't much to cover. Just a row of poor little shacks facing the railroad, the packing-house somewhat to the left and almost beyond range, and the brick church with its gilded cross. By the time Flannigan was comfortably settled there was not a living thing in sight in Medora.

"I'll bring 'em out," said the bad man, training his weapons on the unprotected windows. Instead of bringing them out he drove them to their cellars. Chuckling to himself, he divided his attention between the line of shanties and the slaughter-house. For more than an hour the bad man continued the siege. Then he began to tire of shooting away his ammunition at something that wouldn't shoot back. The church offered four windows with whole glittering

UP THE RIVER FROM THE VERANDA OF THE MARQUIS'S HOUSE

Digitized by Google Original from UNIVERSITY OF MICHIGAN



VIEW OF THE VILLAGE FROM THE WIDE VERANDA.

panes. He argued that perhaps the priest would come out to protect his property if no one else would, so he began picking out the window-panes, one by one.

The second pane had scarcely crashed upon the floor before the Marquis de Mores, who had been sitting on his veranda watching the bombardment, sprang to his feet. He ran to the gate where a horse, saddled and bridled, stood waiting. The next moment he was splashing through the river and galloping toward the spot where Flannigan lay on his stomach, blazing away. De Mores dismounted when he reached the railroad embankment and started on a run for the bad man, revolver in hand. He approached Flannigan from the rear, so that that gentleman did not hear his footsteps on the soft earth until the marquis was within two yards of him. It was then too late to get one of his guns into action in the new direction; and before the bad man could think twice the angry Frenchman had him by the collar and was pounding his head against the ground.

"You miserable scoundrel," the bad man heard him say, "you may break all the windows in Medora and shoot my slaughter-house full of holes; but when you turn your guns on that little church you'd just as well turn them on me!"

The desperado was disarmed and handed over to a deputy sheriff, who came crawling out from under the depot platform, where he had been trying to make a tunnel to open air through which he might shoot.

The great Chicago houses were too strong for the Bad Lands, and the packing-house did not operate long. Soon the marquis began to devote all his time to the ranch. Night after night he spent in the saddle, guarding his herds and precious fences. The marquise lived under constant dread that some rangeman would kill her husband, and when he was abroad on his tours of inspection she spent most of her time in the little church. When the packing scheme failed there was really no excuse for De Mores to stay in the Bad Lands. His wife tried to induce him then, it is said, to give up the ranch and return to the East. But he wanted to be game. He had learned one thing in the West—that men out there had no respect for a "quitter."

The life was a dull saw ripping its terrifying way into the marquise's breast. People said she had the desert sickness, which is an unceasing longing to fly from the unchanging, grinning whiteness, and an inability to do so. She stayed there to protect her husband. Every shot she heard she imagined was the report of some lawless man's rifle whose bullet had gone through her husband's head; every hoof-beat break-

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

ing in upon her dreams at night must surely be at last the dreaded messenger bearing the tidings she had so long tried to school her heart to hear.

The marquis laughed at her fears. He said the range men were cowards. He even prevailed on her to go to New York and visit her parents. She left for the East one day, but the next she came back, her head drooping lower and her face paler. The desert had called her, and she did not leave it again until De Mores put the key of the green mansion into his pocket and bore her company. It was well she remained, or his grave would be now on the melancholy, lava-strewn shoulder of some butte, instead of in far-away Tunis.

Time and again De Mores and some marauder exchanged shots without injury to either party, but one day the Frenchman adopted the tactics of his Indian neighbors and brought down his man. He fired from ambush into a party which had just cut his fence and was riding away, laughing over the trick they thought they had played on the silly marquis. One man plunged from his saddle and the others galloped over the hill with bullets from the enraged nobleman's gun clipping the sage-brush around them.

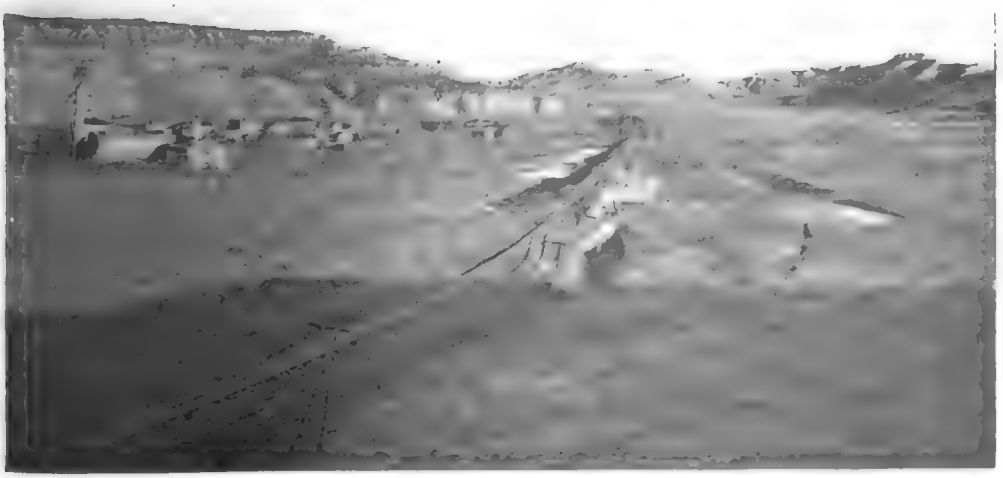
The man who was killed belonged to a band of cattle rustlers who operated all over the Little Missouri country. Vice-President Roosevelt, who was then deputy sheriff and had a ranch at Chimney Butte, was active, later on, in driving them out of the country. The desperadoes would shoot a man, or hang him when they could find a tree, as readily as they would change the brand on a steer.

No one at Medora knew the dead man, and his friends did not come back to claim the body. He was buried in a little plot of sand on the river bank opposite the slaughter-house, the marquis was regularly tried and acquitted, and the incident, so far as the law was concerned, closed.

The dead man's friends, however, were not satisfied. They gathered reënforcements and rode into Medora one afternoon. They hitched their horses in front of the saloon and openly announced that they had come down to hang De Mores to a telegraph pole.

"We'll hang him," said the leader, "where the madam can look out of her winder an' see him claw air."

Of opposition there was little danger. That the desperadoes knew, for they were almost equal to the entire population of Medora. And then, Medora was not a fighting community.



THE VILLAGE OF MEDORA FROM THE WEST.

Digitized by Google Original from UNIVERSITY OF MICHIGAN

"It's my opinion, boys, that you'll have to ketch him before you hang him," remarked the saloon-keeper as he lolled in luxurious contentment behind the bar, watching his able assistant shove the big bottle up and down the line of dusty jurors who proposed to re-try the marquis and execute their own sentence.

This piece of humor drew a roar of laughter from the patrons of the bar, who immediately extended to the proprietor an invitation to "get in the game." He declined on the plea of extraordinary activity in his trade. The rustlers knew the marquis's habits well. At that time of the year (it was mid-summer), he always left home early in the morning, spent the day riding over his estate, and returned about dark. They hung about the saloon all afternoon, and about sundown the leader of the crew and his lieutenants retired behind the church to perfect their plans.

It had been one of those skin-shrivelling days in the Bad Lands, but "the madam" had walked across the bridge to the little church. She was sitting beside an open window when the men who were hungry for her husband's life left the saloon and disappeared behind the church. They stopped within two yards of the spot where she sat and unfolded their plot in detail, the leader giving each of his subalterns their instructions. They were to watch for the marquis's arrival, and one of the gang was to ride up to the gate, call him out, and hold him in conversation regarding his fences until the others could surround the house and close in. The duty of acting as decoy fell upon a tall, scrawny, long-nosed cowboy, whose only name was "Gunny Sack Bill." Bill staked his reputation that he would make the conversation so interesting that the marquis would stay until the others came up, and, "if he tries to break away," said Bill, "I'll rope 'im."

The desperadoes even marked the telegraph pole upon which they were to hang De Mores. It was the second from the western end of the bridge. "The madam," trembling but eager, waited until she heard the men move away, then crept along the floor to the door, determined to warn her husband. He was likely to arrive home any minute, and it was a question of reaching the railroad embankment and running along the farther side, where she would be out of view, to the bridge. Once there the outlaws could not overtake her. The marquise knew no help could be expected from Medora, for the drunken rustlers had driven everybody into their houses. All down the little, one-sided street she could see the doors and windows closed. There was not a sign of life, save two or three men loafing around the saloon and the horses of the rustlers standing with drooping heads, resting in the growing shadows after a hard day against sun, flies, and thoughtless masters.

It was several hundred yards to the railroad, and between it and the church was nothing to shield her from the outlaws. Their pickets would be sure to see her leave the church and, drunk as they were, would recognize and understand her purpose. She stood for a moment in the door looking across the river to her home on the hillside. A horseman appeared on the crest of the butte above the house. He was more than a mile distant, but there was a curtain of fiery sky behind him, and all around that deceptive air which brings far-away mountains to one's finger-tips. It was the marquis. No one in the Bad Lands sat a horse like him. The rider brought his animal to a stop and seemed to be surveying the country to the west.

The marquise waited no longer. In a few seconds she was well on her way across the stretch of white between the church and the railroad, speeding like one of those little desert whirlwinds.

"Gunny Sack Bill," alert and ill-humored, had just given the alarm of the marquis's approach and several men came clattering noisily out of the saloon. They saw the flying figure, the open church door, and put the two together with that rapid faculty for reasoning which is the plainsman's characteristic, drunk or sober. Not a word was spoken, but half a dozen revolvers were jerked from their holsters and half a dozen little clouds of dust were kicked up around the racing woman's feet. The leader of the gang, aroused by the shots, ran to the door, "gun" in hand. He saw how things stood. Fetching the beer sign a rap with his weapon to attract attention, he cried:

"Hold on, boys. We ain't after no woman. Leave the madam go an' tell 'im if she wants to. It's only nach'ral you know fur her to feel a leetle worried."

But "the madam" did not slacken her

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

BAD LANDS AND RIVER, LOOKING SOUTH FROM THE HOUSE.

Digitized by Google
Original from
UNIVERSITY OF MICHIGAN

speed when the shooting ceased and she saw the rustlers were not following. She reached home as the marquis came galloping up to the gate. When De Mores heard her story, he was furious. Calling loudly to his servants to arm themselves, he declared he would ride down on Medora and shoot every coward of the gang. The marquise entreated him to fortify himself within the house and he finally yielded to her, after setting pickets in a military fashion all around.

As the night grew De Mores appeared to make light of the incident, save the attempt on "the madam's" life. For that he swore every man in the crew should pay. As for the threat to hang him, he said, it amounted to nothing. He finally prevailed on his wife to retire. Then he mounted a horse and, unattended, rode over to Medora. There he learned that his enemies had crossed the river and gone into camp. The marquis, his face strangely white and expressionless, swung into the saddle again and rode away toward the river. The saloon-keeper and the few citizens who had plucked up courage to come out for their regular nightly round of drinking, stood looking blankly into each others' faces as he disappeared in the darkness. They were daily witnesses of audacious feats, but this Frenchman going single-handed against twenty-five ruffians who were ready to hang him was the most striking exhibition of nerve ever seen in Medora.

When the marquise succeeded in escaping, the rustlers decided to change their plans. Knowing De Mores would be prepared for them, they concluded to await until well along in the night, then storm the house, burn it, if necessary, and drag him out. So they crossed the river and made camp on the flat where the military station had been. They made a fire to boil their indispensable coffee and fry their "sow belly" which was part of every cowman's outfit in the Bad Lands. They were eating their supper, some drunk and none very sober, around the embers of their fire, when the thump of a horse's hoofs and the rustle of the scrubby sage-brush as the animal came on, picking its way in and out, brought them to their feet.

One of the gang, out of habit acquired in the Indian country, was about to empty the pail of water which stood by on the fire when the leader stayed him by placing his hand on his arm. For a second the latter stood with head eagerly inclined toward the point from which the sound came. Then he said:

"Put the bucket down; they ain't only one."

The horseman came on and soon could be made out, heading for the group around the little red dot of fire. The fag end of a stick threw out a little jet of smoke with a singing, whistling sound and burst into flame. It seemed as if every man in the crowd had become suddenly sober. All stood with brows drawn and revolvers clutched tightly, trying to bore into the night and see who the intruder was. The stranger guided his horse up to the fire, sprang to the ground, dropped the long bridle-reins at his feet, faced the astonished men, and remarked:

"Now, gentlemen, if you have a rope ready, here I am. I am the Marquis de Mores."

The unsteady blaze, leaping up and falling low, like the pulse of a man who is dying of thirst on the desert, showed the marquis's strange, pale face. His lips were drawn in a smile such as some of the rustlers had seen on men's faces when they turned their backs to the wall, after hope was gone, and fought for the sake of killing. In his hands were two long-barrelled pistols, upon the nickel trimmings of which the light scintillated; his sombrero was pushed back from his forehead, and his hands were encased in gloves.

For a moment there was not a sound around the little blaze. The marquis's horse shook its head and began snuffing and nosing about in the shrubbery at its feet. One of the long pistols in the marquis's hands pointed at the breast of the leader of the gang; the other, as "Gunny Sack Bill" could see, persistently followed his head, no matter how he turned it.

Presently the leader of the gang threw his revolver down with an oath which made the marquis's horse start, jerked his hat off, and advanced toward the Frenchman, holding out his hand.

"Put 'er there, pard," he said; "you got a blanked sight more grit 'n I give you credit fur." Then facing his grim-faced crew he continued: "Boys, they won't be airy hangin' up to Medora to-night. That affair has been indef'nitely postponed."

Together, De Mores and the men who had

Digitized by Google Original from UNIVERSITY OF MICHIGAN

a few minutes before enjoyed the prospect of seeing him "claw the air," rode over to Medora. The gang drank long life and tight fences to the marquis and several gallant toasts to his pretty wife.

That was the last adventure the brittle-tempered Frenchman had in the Northwest.

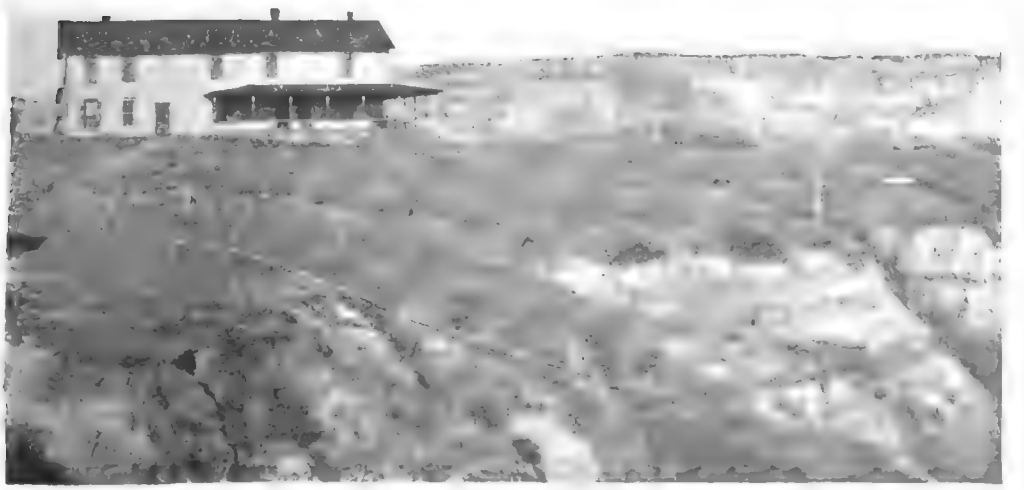
He stayed in the Bad Lands until he was whipped by the country. But his brave struggle was hopeless. The Bad Lands are not so named for nothing. One afternoon the inhabitants of Medora were not surprised when they saw the numerous trunks of the strange dwellers in the green mansion piled upon the depot platform awaiting the east-bound train. They knew it would come to that in the end.

The marquis was a strange man, who came into the West as a fantastic shadow out of another world, and tried to fashion the big, raw country after the pattern of things he knew. It was his ambition to found a great American house in the Bad Lands. He was slain, as he slew his man in the Bad Lands, from ambush, while leading a French military expedition in Tunis something more than four years ago. His widow now advances the claim that he was the victim of a conspiracy on the part of certain French government officials. He is still remembered in the Bad Lands where his green mansion stands lonely and weather-stained on the bleak, slant side of a treeless butte, and his abattoir, wind-haunted and falling to decay, marks the low bank of the Little Missouri. The acres of unprolific soil over which he held a lordly sway still bear his name, and cattle men smile grimly and point out here and there fragments of the wire fences he built.

Medora has dwindled down to Mrs. Roberts and the operator again, with one or two others who come and go. The saloon was there not long ago, but it, too, may be gone by this.

Chancing to stop off there some time, you may meet "'Tater Leg Pete" at the depot—or, rather, he may meet you. He will point out the marquis's house and tell you he worked for him. You may remark that you have heard the madam was very beautiful and very lonely there. Then "'Tater Leg" will ask you if you chew. If you do and hand him your plug, he will bite it reflectively, hand it back somewhat reduced in weight, and say:

"Yes, she was. She was a bird. Lonesome? Well, I don' know. Might 'a been. But I don't see how nobody could be lonesome here at Medora."



THE DE MORES RESIDENCE, FROM THE PATH LEADING TO "THE MADAM'S" STABLE.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

"THAT DESPERATE DASH, NOW SO HISTORIC, ON THE CAUSEWAY LEADING TO THE SOUTH GATE OF THE TIEN-TSIN CASTLE."

AT THE INNER GATE OF TIEN-TSIN.

By Adachi Kinnosuké,

Author of "Iroka: Tales of Japan."

Illustrated by W. J. Glackens.

THEY were mere privates, the Four—Masuda and his three friends. Never taking themselves seriously, and therefore humorous, most of the time, in their quiet and dry fashion, they gave a certain touch of levity—a coquettish trimming, if you will, to perhaps the most silent paradise of discipline, the serious camps of the Nihonese Expeditionary Army.

"Good fellows, every one of them," their comrades would say of them, "just the sort of boys you want when you are getting up a vaudeville programme in a hurry."

But the glory of the Sun-Round-Flag is not exactly to be trusted into the hands of acrobatic monkeys. The seriousness, however, with which the Nihonese soldiers take the honor of their Homeland, I see, is causing no end of merriment among the wise correspondents from the West, so famous for the sense of humor.

"Well, we got to stick to each other, I suppose," said Masuda with a melancholy smile, more quizzical than melancholy, by far, of course. There seemed to be something in them that made all the rest of the soldiers burst out into hearty laughs at the sight of the Four. To make others happy—to entertain them through a series of contortions, jumpings, high and wide, and of making a human padoga, four stories high—a very happy gift, that certainly was; at the same time it was not always convenient to be never taken seriously.

"The *chan-chan* brutes! Don't they know that I had enough of small-pox? Can't they see my face? What do they want to

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

pit a thing so thoroughly pitted as my hide for, those blind, barbarian Celestials! can you tell me?" said one of the Four.

"Don't you see, as usual, you are too lazy to dance to their taste, and they are furnishing you a livelier tune," laughed another of the Four.

"Don't be jumping up and down on the same spot like that—can't you run a bit? You look like an old, dirty, demented heron stuck in the mud. No wonder that the *chan-chans* are potting at you!"

Much more than these things was said on that desperate dash, now so historic, on the causeway leading to the South Gate of the Tien-Tsin Castle, and the laughs of the Four quivered, so oddly, so drunkenly, and perfectly out of place amid the shrieks and the hailings of shells and shots. It was on the historic morning of the 13th of July, 1900.

Long, dear me! how long those moments were!—just like the moments that are to be waited at the lover's tryst.

"Time has dropsy this morning!" and some one let loose a wretched, wet counterfeit of a laugh.

"But you might just as well remember that your patience is upon the 'mountain of needles,'" and the attempt at a philosophical exposition was not as wise and witty as it was meant to be.

So the Eleventh Nihonese Infantry was crouching in the huts in front of the South Gate of Tien-Tsin to make the desperate spring over the two hundred metres between them and glory. It was about three o'clock of the morning of the 14th of July, 1900. Two hundred metres!—and those men had spent a goodly portion of the 13th in trying to cover the distance. It was the opinion of the soldiers that it would travel down history as perhaps the most tantalizing two hundred metres in the memory of war. It would be well for you, therefore, to think twice before making a wise or witty or wicked remark on their impatience—they were waiting the signal—the signal to make the spring.

"RUSHED BACK AT ONCE FOR ANOTHER PREPARATION OF GUN-COTTON."

"NOTHING ELSE . . . FOR THOSE CELESTIAL BRAVES TO DO BUT . . . TO ROLL DOWN . . . BITS OF SMASHED WALLS."

One, two, three, . . . and they counted nearly eleven thousand impatient seconds, and . . .

The earth shuddered, and not the most pleasant mixture of groans—so huge, however, that a mountain in its death agony alone could give the like—of a roar of a volcano and of the laughter of genii, went thundering abroad and swallowed up the minor concert of Chinese rifles and guns. The engineers blew open the South Gate with gun-cotton—that is what the evil sound meant. That, also, was the signal—the signal for which their souls were sore with impatience—the signal for the spring, the forward march. In a flash they were upon the two hundred metres, and they made you think of so many tigers, swift in the air, leaping down upon their prey. And they were a veritable hurricane as they stormed and whirled through the wreck and ashes of the gate—through the ink and white of its smoke. Their dream of conquest was . . . well, was still a dream—it did not turn into history as quickly as they thought. The outer gate passed—that was very well so far—but the inner gate! It seemed as hard in its grim exclusiveness as the outer one had been before the engineers used a rather radical eloquence of gun-cotton to persuade it. Barred and locked, and the wall around it was as tall as the outer. The result was that the army, dashing

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

through the outer gate, crammed every inch of the space in the enclosure between the outer and the inner gate. Atop of the walls, both outer and inner, were the Chinese gunners. There was, at their feet, a Death's trap. They saw it. They saw, also, with what a merry pace the soldiers of the Allies were crowding in through the outer gate. How like unto the summer moths they were, those wild-boar soldiers of the Allies, who knew only how to advance—utterly ignorant of the philosophy and wisdom of a certain retreat! It struck the humor of the wise Chinese atop of the walls. Indeed, there was nothing else, nothing better for those Celestial braves to do but to shoot down into the enemy-crammed Death's trap—and, in truth, it was hard, indeed, to miss—to roll down rocks, bits of smashed walls, and things not the most comfortable in the world for the heads of the soldiers below.

The lieutenant of the Nihonese engineers, who superintended the destruction of the outer gate, rushed back at once for another preparation of gun-cotton. There was nothing to do but to blow it up again, if possible, this inner gate. But then, it took time—so much time. And into the excited, irritated, nervous stew of the helpless and very angry body of soldiers, fell shots and rocks and things, indescribable, by the hundreds. Deaths were commoner than dirt, even in that dirty enclosure, and perhaps life was the cheapest thing in it.

On the break o' day of the 14th, amidst the international curses and the din of things falling and bursting in so many annoying bits into the Death's trap, the Four found themselves together. They saw their comrades putting up ladders so that they could bring down the top of the thirty-foot wall into a better understanding with the shortness of their legs. They saw also that the Chinese had more rocks and things than the Nihonese had ladders.

"Come up here—make honorable haste, now! you boys—your honorable presences—you sprain-legged snails, you!" Masuda was shouting down to the majority of the Four, from the roof of a house which was dead, like a brave soldier, with a shell through its heart, and with its shattered corpse pillowed against the inner wall. The sprain-legged snails were atop of the house with a marvellously miraculous rapidity—not only for snails, but even for sound-legged professional acrobats.

Masuda was standing with his back against the wall.

"Condescend to climb up, honorable presences, upon the shoulders of the humble one. . . . Eh! make haste!"

"What for?"

"Over the wall, of course!"

"What can we do, we Four?"

"Open the gate from the inside, to be sure!"

Then they laughed—heartily. "Crazy as a monkey with its tail on fire!"

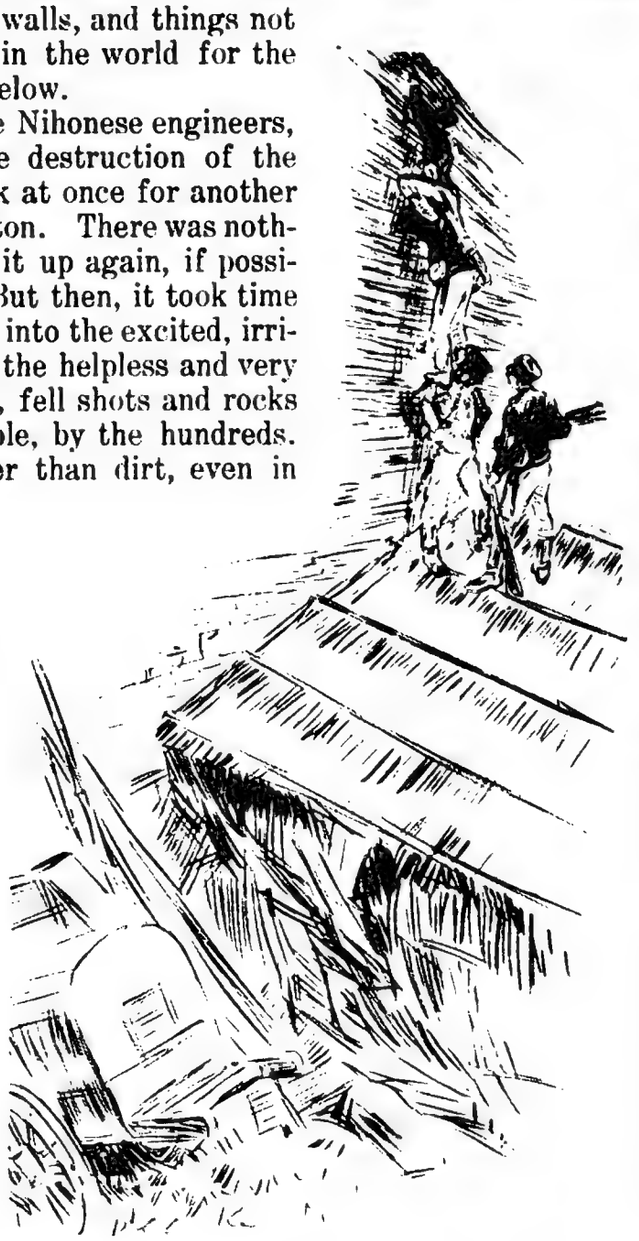
"Eh! quick. . . . I can climb the wall by myself and open the gate, too."

His comrades stood open-mouthed before him.

"Have you forgot how the gate of Ping-yang was opened? Hurry up . . . or I'll leave you and do it all by myself in a minute!"

The reference to Ping-yang brought back to the memory of the men the heroic incident in the Chino-Japanese War—how a private scaled the wall and opened the barred gate from the inside.

Many a time, just for show, they had



"A BLACK LINE CLIMBING TOWARD THE TOP OF THE WALL."

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

"TO MASH A FELLOW . . . WITH THE SHEER WEIGHT OF MASS AND MEN AND WEAPONS."

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

"THE REPRESENTATIVES OF MANY PROUD NATIONS . . . SHOOK THEIR HANDS."

stood atop of the shoulders of each other, rearing a hastily constructed human pagoda. In a minute there was a black line climbing toward the top of the wall—only this time it was not exactly for show. As a matter of fact, none of the Allies noticed the ascending line—and, more fortunately than that, the Chinese atop of the wall never dreamed of such a thing—they were too busy throwing things down where they saw a ladder hoisted.

When Masuda scaled, on his fingers and toes, all the length of the wall, he saw that his companions were waiting for him. The smoke from the explosion of the outer gate was still covering a portion of the outer gate. The Chinese soldiers somehow—maybe their nerves did not like to have their enemy quite so close as it was at the time, even if it was in the Death's trap, thirty feet below at their feet—did not have the careful curiosity of the cool victor. If the Celestial defenders were too busy to be curious of those who were rushing through their midst and adown the wall, the Four had certainly much less heart and time to meddle with the others' affairs. At a turn of the incline leading down into the city:

"Tong-yang . . .!"

But Masuda's pistol-bullet crushed through the teeth out of which the dangerous shout came, and a Chinese soldier threw up his arms and fell forward. The Four, however, had hardly time to see death break the warning shout of "Eastern Ocean men!"—for to the Chinese the Nihonese are the "Eastern Ocean men." The Gate!—the Four had never an eye on anything else. Without any choice, therefore, they stumbled, alike over men, things, and the dead—they did not care—the Gate! All of a sudden, without the slightest warning, without a single word, without a shout, there flashed in their racing, tumbling, rolling course, the head of that peculiar type of spear which is so beloved by the *I-ho* braves. When you think of it, in the course of your historical study, it is such a pity that some men choose such an inconvenient, such a weighty moment to make fools out of themselves. One of the Four took the head of the spear seriously; he could hardly have made a more serious blunder in all his life. In a flash, his short sword was out of the scabbard. And the way the spear was decapitated told, to any one interested in a matter of this sort, that the keenness of a blade depends largely on the hands in which the sword is held. That was all very well, but in a twinkling of a thought, a chaotic mass of hostile weapons was clanking in a deafening pæan above and all around him. At the time, the Chinese cared but little for the form and appearance of things—to mash a fellow, like a potato, with the sheer weight of mass and men and weapons, was, to their taste, as good as to carve him neatly with the swordsmanly art. The shout, as glad as on the winning of a battle, and as hearty as at a jubilee, rose over a Nihonese soldier without life, and, moreover, with no more form than a heap of sausage—so chopped, trampled, crushed. As the luck would have it—perhaps the will of the gods, who shall deny it?—the victim was the last of the racing Four. This concentrating the attention of the Chinese soldiers upon himself—it was the patriot gathering the spear-points of a hostile front into his own bosom of the heroic memory of the classic time brought to life once more—made the path of the remaining Three, to the gate, smoother.

It was a miracle, that sudden opening of the gate from the inside, to the cursing, shouting, demented soldiers from so many distant parts of the world, all packed pell-mell like sardines in a room-small hades.

When they came to see how it was done, the applause of a world was theirs, Masuda's and his comrades! The representatives of many proud nations from the other side of the world—the starred and gilded gentle-

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

men who have the distinction of making themselves large, superior, and the bravest of men in their own minds, for no more striking humor than that Nelson, Napoleon, Frederick II. of Prussia, Peter the Great had fought so magnificently years and years before they were born—came up to them as to a historic shrine, shook their hands, as if they were the hands of a god. When the Sun-Round-Flag was planted over the South Gate, and the national anthem of Nihon thundered down—with as little melody as in a thunder-storm, shouted, rather than sung, by as unmusical a mob of voices as you would wish to torment your ears with—over the wreck of things and of deaths, red in blood that was still warm, the Three stood haloed—like so many saints of foolish looks you see in some of the old Christian paintings of the pious centuries in Italy—with the haloes of glory, luminous with all the gilding of the grateful and reverential imaginations of their fellow-soldiers. But there was a look in their eyes—and the cool and the indifferent could see it—which you see sometimes on a declamation day at school, in the gazes of a boy-orator who has lost the key-word at the height of his peroration.

Having done the best, with their eyes of flesh, to discover the remains of the lost of the Four, and having given it up as utterly useless, all the same, they could not keep their minds from wandering over the wall and the field, seeking, seeking, and seeking the lost.

"Oh, of course he was killed; oh, of course, . . . But you see so many queer things happen . . . mightn't he . . . ?"

"But where could he be? Death don't put a pair of wings to an every-day, common soldier, does it? If he died, why isn't he somewhere? Why can't we find him? That's what we want to know."

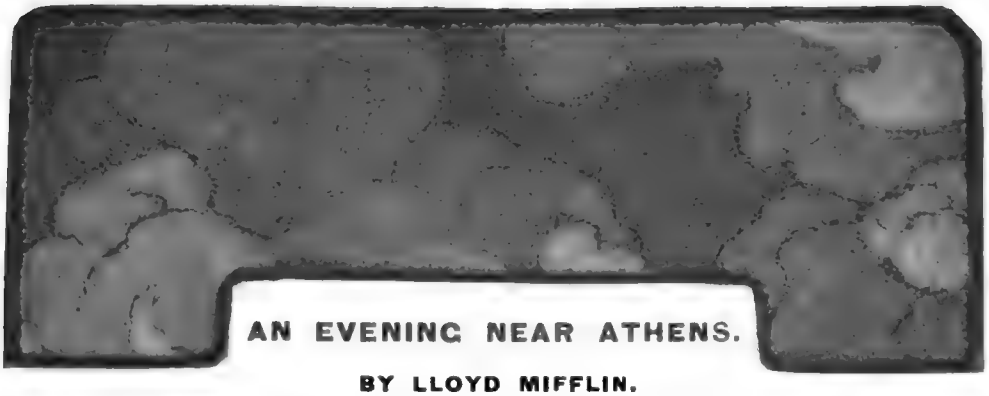
"And he was not the kind that would throw up the sword and go into the ghost business."

The Three were speaking.

The gratitude of a nation, the applause of the civilized world, and the supreme glory of the soldier at their feet; nevertheless, like Rachel weeping for her children, they would not be comforted.

"'WHY CAN'T WE FIND HIM?'"

Digitized by Google
Original from UNIVERSITY OF MICHIGAN



AN EVENING NEAR ATHENS.

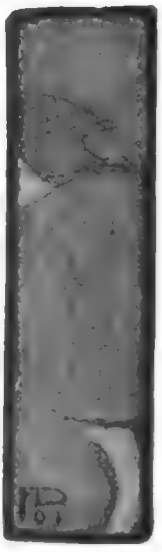
BY LLOYD MIFFLIN.

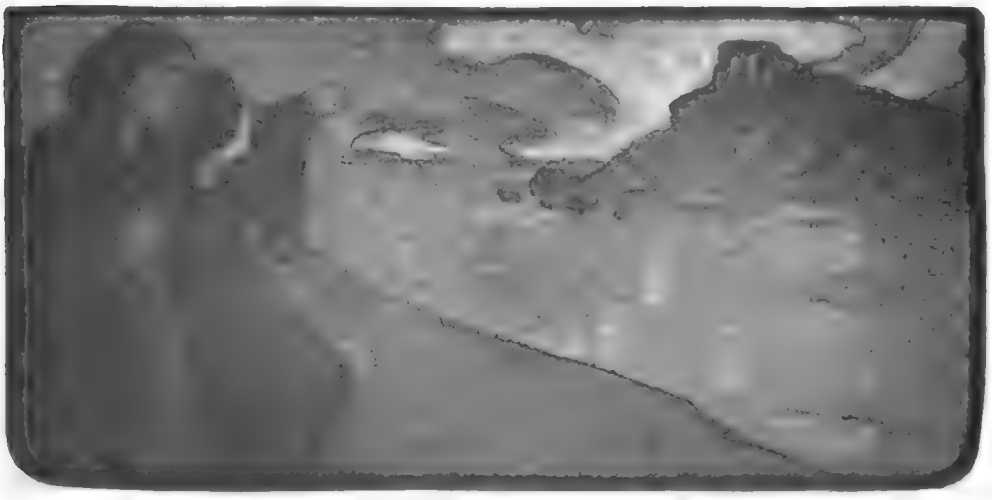
HOW many an eve, on yonder peak at rest,
We watched the sumptuous splendors of the sky,
The fading hosts in plume and panoply
Pass, on the cloudy ramparts of the West;

HUGE Titans, hurling towers from the crest
Of toppling mountains of vermilion dye;
And phantom galleons, slowly drifting by,
'Mid amber seas to havens of the blest!

ISLANDS of desolate gold; cities august
Tottering upon the verge of scarlet deeps;
Vast promontories crowned with jasper fanes

SLOW crumbling into wastes of ruby dust;
And, plunging shad'wy down the crimsoned steeps,
The Horses of the Sun, with flaring manes!





Digitized by Google
Original from UNIVERSITY OF MICHIGAN

FROM THE CHOPS OF THE LION.

By William MacLeod Raine.

Illustrated by Penrhyn Stanlaws.

REWARD.

Two Hundred Pounds

Is offered for the Capture

Of one Lieut. Dale Carteret, rebel prisoner recently escaped from Mill Prison. Said Carteret stands six feet in his stockings, weighs thirteen stone or thereabouts, has open, ingenuous countenance, brown hair, blue eyes, and carries himself well. Escaped in guise of a British Officer of the Line.

The said rebel Carteret was second in command of the Yankee sloop "Scorpion," which long preyed on our commerce, but was eventually taken by the frigate "Blake." A storm having arisen, Carteret incited the rebels to rise against the prize crew and recover the sloop, which was again run down by a British man-of-war in the English Channel a year later. Brought to Mill Prison, this notorious rebel Carteret has twice succeeded in breaking gaol. Wounded three soldiers before being retaken after last escape. All loyal men are earnestly warned against assisting this bold and bloodthirsty rebel to leave the Kingdom.

FOR the better part of a week I had been playing hide and seek with His Majesty's catchpolls. 'T was a game I had played and lost with them once before, for the odds of the hazard were all against me. Everywhere I went that cursed sign confronted me. On the wall of every village tavern it was plastered along with a villainous likeness of me, and I lived continually in the fear that some country yokel of a chawbacon would clap his dirty hand on my shoulder in the king's name.

Faith, I could not complain by reason of the sameness of my life, for of late it had been spiced with adventure enough to suit Captain John Smith himself. I was not yet twenty-three, yet I had taken part in the capture of sixteen British merchantmen and four sloops before the "Scorpion" came to grief; had since broken prison twice, and endured a hundred frights that took my courage by the throat. Within a se'nnight I had lain buried in a hayrick, while the redcoats drove bayonets into the hay to see if I were there, since which time my leg had protested much, as I limped painfully through the night, at being used for a pincushion; I had fled into the darkness from the back door of a tavern as the constables entered at the front; I had palmed myself off for an officer in pursuit of myself to a suspicious country squire. More than once I had come front to front with dawning recognition, and while the man suspecting me had sheered off to get help, I had incontinently legged it across the hills. Double which way I would, the Bow Street runners hung on my heels. I vow their grip had missed me but a hair's-breadth a dozen times in the past week.

I had fought with hunger and cold and weariness, till the sap of life ran low within me, till every aching muscle and throbbing nerve cried out at the intolerable pain; and only a vision of the black hole in Mill Prison kept my legs moving. No faintest guess of how I was to compass my exit from the island served to lighten the way. Indeed, I thought myself to be but postponing the inevitable moment of my capture. To be

Digitized by Google

Original from UNIVERSITY OF MICHIGAN

sure, I had one good friend in London, but where she lived, or what she could do for me in case I found her, were questions quite beyond an answer. The misery of the present sufficed to drive away fears for the future.

The cold rain drizzled down and chilled me as I dragged myself across the Hampstead Heath. My affairs were so black that I had almost given up the expectation of anything but lowering night for me, and while despair was knocking at my heart, the wind of my fortunes veered quickly point by point. To speak by the card, a coach sheared past, lurching unsteadily through the mud and in the deep ruts. Fifty yards beyond me it came to an abrupt halt. I heard a sharp command to "Stand and deliver!" and the sound of the frightened postboy quieting the startled horses.

"LIMPED PAINFULLY THROUGH THE NIGHT."

The scudding clouds drifted from in front of the moon to show me three masked horsemen surrounding the coach.

"'Sdeath and wounds! Tumble out, my bullies, or we'll pepper you full of holes as a sieve!" one of them was bawling.

A head, adorned with a queue wig, was thrust from the window of the coach. "'Od's blood!" began the owner of the head. "What the devil do you mean by—?" The question tailed off into a gasp, and the head was withdrawn abruptly in deference to a pistol flourished under the nose of the macaroni.

"Come, out with ye," cried the fellow again. "No skulking here."

The door of the coach was flung open quicker than he could have expected, and a young blood in silver-buckled slippers and white satin breeches stepped out. But before his foot had reached the ground, one of his pistols had barked at the leader of the fly-by-nights, and struck the weapon in his hand. The fellow dropped his pistol with an oath, and clapped his hand to his tingling fingers.

"Stap my vitals, I'm hit," he roared.

"Your most obedient," returned the buck coolly, and let fly at another of the horsemen.

The fellows closed on him, and before he had time to draw his sword one of them knocked him senseless with a loaded billy. Two other bloods trod on each other's heels in their hurry to get out of the coach at the orders of the highwaymen. All this took but a moment, and another to line the macaronis in a row with the postilion, their six hands trembling in the air.

"God's life, don't keep me here in this cursed rain," a peevish voice protested. "Take what you want, and be damned to you. Sink me, I'll have rheumatism for a month if I stand here any longer in this devil's swamp."

"May I ask whom we have at our levée this evening, gentlemen? Last night 'twas a jolly grazier with a fat purse, and the night before a gouty bishop with a lean one," quizzed one of the robbers merrily.

"Lord Brooke, Sir John Ludwyck, and Levering Blanke," quavered the latter gentleman, plainly in a great funk.

"Distinguished guests! Honored, I'm sure," mocked the masked spokesman. "Let me introduce in turn the Marquis of Fly-by-Night, the Earl of Cut-Purse, and my humble self, Lord Footpad. All of us

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

"'LEVERING BLANKE,' QUAVERED THE LATTER GENTLEMAN, PLAINLY IN A GREAT FUNK."

your most humble and devoted. Lard, yes!"

And the fellow strutted with an air. Faith, his manner was the macaroni to the life. It sticks in my mind to this day that the fellow had been a gentleman once. More than one frequenter of the coffee-houses won the gold he staked at play by night-riding.

"Damme, I'm not here to chop phrases with you. This is not a ball. I've got three ponies, a gold watch, a jewelled snuff-box, and three diamond rings. Rook me, and be done with it, curse you," flung out the old lord pettishly.

He was trembling with the cold, but he did not give a pinch of snuff for all the night-riders in England. There was good stuff in the old fossil yet.

But the rogues were heated with wine, and they did not bag such game every night. Perchance that was why something in the words of Lord Brooke gave them pause.

"All in good time, my Lord," laughed the merry villain who was their spokesman. "'Swounds, since you have suggested it, why not trip a measure on the green for the warming of the blood?"

My lord cursed and grumbled to no avail. Willy nilly, he should join the dance, just to show he bore no ill-feeling. And dance he did, in company with the Hon. Levering

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

Blanke, white-faced and pallid, the chattering postilion, and the scamps who were destined for Tyburn. Egad, had I been in a more forlorn plight than I was, I must needs have laughed at the droll spectacle of that improvised minuet in the shifting moonlight on the dripping heath. The elegant macaronis in blue and silver with point ruffles, their powdered queues turning to a sticky paste beneath the fine drizzle; the masked and booted cut-purses gravely giving back bow and counterbow to the dandies of Rotten Row; the white, motionless figure of Sir John Ludwyck receiving no more attention than if it were a sack of potatoes: surely a most strange scene of merrymaking. 'Twas a sight to set the gods a-laughing to see the old Lord go down the middle with the Marquis of Fly-by-Night on his arm, and a sickly smile and stifled curse on his lips. Many a time since I have laughed till my sides ached to think of it.

And this was precisely what the rakehelly captain was doing at that moment. He shook so with merriment that 'twas a marvel the weapon in his hand did not punctuate some of the performers, and bring their activities to a period. I had slipped up in the shadows unobserved, and at this moment I interposed by clapping my pistol to his head. 'Twas ludicrous to see the change that came over him. He was struck by a bolt out of a clear sky. Never a craft had the wind more completely taken out of its sails. His jaw dropped lankly, and he looked the picture of dismay. I vow he was the dismallest merrymaker in all England. It was his turn to dance now while I set the tune. One of his companions made a motion toward his weapon, but at my sharp command the three pistols dropped to the heath.

If Lord Brooke were surprised to see help come running out of the night, he gave no sign of it. No doubt he prided himself upon his aplomb like the rest of his breed. "Egad, the plot thickens!" he chuckled, and coolly ambled off to warm his wet feet at the hot-water jug in the coach, leaving me to settle matters with the highwaymen.

"Wha—wha—what are you going to do with them?" chanted the Hon. Levering Blanke, not yet out of his ague.

"Wha—wha—what would you suggest?" I mocked.

A gay laugh rippled out. I looked out of the corner of my eye, to see Ludwyck feebly sitting up on the turf, nursing a broken head in his hands.

"Ketch at the end of a rope at Tyburn, and Jack Ludwyck there to see the fun," proposed the baronet as his solution. "Zooks! Naught less will pay me for this cursed headache."

I liked him on the spot. He was so gay and frank and boyish, that he was a man after my own heart. But manifestly he had not cut the Gordian knot of the difficulty, for Dale Carteret was not exactly in a position to drive a batch of fly-by-nights to the hangman. Indubitably there would be ugly questions asked which would find their final answer in Mill Prison. What we did in the end was to turn our captives weaponless adrift upon the world.

Nor did I fail to accept the young baronet's invitation to fill the fourth place in the coach. I gave the name of Captain Macquoid, invalided home from the colonies by reason of a wound at Brandywine. They did not ask me what I was doing wandering alone about the country on such a dismal night, nor did I volunteer information. They divined the truth, and I knew that they suspected it.

How long did I think it would be before Lord Cornwallis brought these rebels to sue for pardon? my Lord Brooke asked with urbane innocence. I thought it would be some time. Indeed! He had supposed the rebellion about to collapse. And was it true that the Americans believed themselves to be in the right? sneered the Hon. Levering Blanke. I answered dryly that they were so obstinate as to be beyond correction on that point. Whereat this tailor-made model took occasion to heap abuse on the patriot cause, and I, Dale Carteret, Lieutenant in the American Navy, sat listening to him with burning ears and fingers itching to be at his white throat, a shining temptation in the moonlight. Happily Sir John appreciated the tempest raging in me, and turned the conversation to the ball at Manfred House they were to attend that evening.

"Heigh-ho!" he yawned. "I wonder whether our American Queen will be at the rout to-night. If not, Jack Ludwyck goes straight home." Then to me: "You must know, Captain Macquoid, that all London has been captured by a bewitching little rebel from the colonies. Egad, she tucks away our scalps in that trim belt of hers as

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

composedly as any of her native redskin chiefs. There are a dozen titles dangling round her. Faith, she may have Jack Ludwyck any time she beckons with that imperious little nod of hers. Blanke here wants her, but zounds! he has no chance —too fat, too old, and too conceited," the candid youth concluded affably.

I heard Blanke cursing under his breath while the young fellow rattled on, telling how prodigiously he was in love with her, how she was deservedly the reigning toast, and had put out of joint several patrician noses about town; and if there were any more like her in the colonies, perdition seize him but he would emigrate and turn rebel.

"Like who?" I asked, laughing. "You forget you have not yet put a name to the enchantress."

But when they spoke the name I half expected them to speak, when I found that the reigning beauty was no other than my little friend Phyllis Westmacott, a strange fire of fear and hope burnt through me, of mingled triumph and despair. She had left the colonies the frankest and most loyal of friends, and I wondered whether the false, tainted atmosphere of St. James had power to corrode such true stanch metal. I had not seen her for years, not since her Tory father had brought her to England, but I was willing to wager my head that her heart was still with the ragged Continentals rather than the powdered, gold-laced redcoats. Though I paid for it with another forty days in the "black hole," I resolved to see her again, and to that intent invited myself to the ball at Manfred House. Pat with my thought came an ironical suggestion from the Hon. Levering Blanke that I attend the drum; he would be glad to introduce me again to the society of some of the officers who had served with me in America.

I took him at his word without turning a hair, and smiled insolently at him while he frowned in perplexity from his narrow slits of eyes. He was trying to decide, from what he had heard Mistress Phyllis say of me, whether I was a rival. An understanding smile passed between the old lord and Ludwyck, and I afterward learnt that my little patriot friend had publicly bet a pair of gloves with the young baronet that I would succeed in making my escape at the next attempt. Under cover of the darkness the generous lad gripped my hand to assure me I had a friend the more. He wanted me to know that though he was a suitor for her hand himself, he proposed to see fair play, and my heart went out impulsively to this sprig of nobility in a rush of feeling.

Once well within the city our party separated, Brooke and Blanke calling public cabs, while Ludwyck carried me to his rooms to dress for the ball. He was of a size with me, and I found no difficulty in fitting myself with clothes of his. They were something overgay for me, but my spirits were rising with the danger, and I was minded for once to forget that I was a plain American naval officer, and play to the life the part of a mincing London dandy. When the announcer at Manfred House bawled out "Captain Macquoid," though my heart beat fast with anticipation, I linked my arm with Ludwyck's, and lounged forward with the macaroni's ennui written on every feature of my face.

Sir John convoyed me to an unoccupied side room, and left me there while he went in search of Phyllis. The rooms were well filled by this time, and 'twas a long half-hour before Ludwyck could get a word alone with her for the crowd of beaux who swarmed about. I was in the window-seat hidden behind some potted palms and ferns when at last they appeared.

"A surprise—a delightful surprise! And from the colonies? Wasn't that what you said? Tell me, is it alive?" that dear voice with the lift and sparkle in it I knew so well was asking eagerly.

"I' faith, very much alive," chuckled Sir John. "It made three lusty highwaymen sing small to-night."

"And I am to see it now?"

"Y'are to see it, an' it will come forth from behind the palms, where it is hiding its light. Ah! Captain Macquoid, I present you to that arrant little rebel, Mistress Phyllis Westmacott, and leave you to convert her into a loyalist."

And with that he bowed himself out like the considerate gentleman he was.

She stood fixed a moment, her startled eyes dilating on me. Then "Dale!" she cried, and came forward in a rush with outstretched hands, a glad welcome shining in her sweet face. "Oh, I knew you would break out, Dale; I told them so when they took you last time. But how thin you are looking, how white and ill and old! Did

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

they try to break your heart in prison, Dale? And did you think I had forgotten? I moved heaven and earth without avail to get you exchanged."

I laughed tremulously, the hot tears scorching to my eyes. Through the mist that blinded me I saw her breast rise and fall with happy sobs. Something in me cried out that 'twas now or never, and next moment London's reigning toast was staining with her tears the Macklin lace of Ludwyck's velvet coat. We had much to say to each other—of colonial friends and affairs, of my adventures and imprisonment, of her great social success, and, above all, of our future plans—but somehow most of it remained unsaid. For long we had been to each other only a memory, and now the happy living present sufficed to blot the unkind past and future from our minds. We were children again in the morning of life, and revelled care-free in our little hour of sunshine.

And a little hour of sunshine it was! I heard a step behind me, and wheeled to see Blanke at the head of three bailiffs in plain dress. You may be sure this brought me up short with a round hitch and a half turn. The fellow had me so safe that I already felt the irons on my limbs.

He fell back and nodded to the officers.

"This is the man."

"What man?" I made bold to ask, simulating haughty indifference. "If you are from a sponge-house, you have a cursed impudence to come seeking me at a public ball," I blustered.

"They are not from a sponge-house, as you know very well, Lieutenant Carteret," replied Blanke smoothly.

"Captain Macquoid," I corrected stiffly.

"Oh, as you will. Lard, what's in a name! One might venture a guess that Captain Macquoid is Lieutenant Carteret in the colonies," he answered airily. "A rose by any other name, egad!"

"One might—and still be wrong. 'Twere a better guess to hazard that the Hon. Levering Blanke is sometimes the Dishonorable Tell-tale Sneak." And I gave him back his smile.

Suddenly the smile froze on Blanke's face. It became a ghastly grin devoid of triumph, full of perturbed concern. He had not known that Phyllis was with me, and had planned to make the catch without her knowing of my presence. Now she had stepped from behind the ferns, and looked at him with such contempt and loathing that the fellow shrivelled up before our eyes. For one instant only! Then she became My Lady Disdain.

"Prithee! What is the meaning of this fairy-tale you are telling about Captain Macquoid? Is it a new diversion for my amusement? And have these good men a part in it? Alack, your efforts to amuse grow wearisome, sir," she told him with lazy scorn.

The Hon. Levering Blanke looked like a whipped cur, his face gone pale in blotches beside the patches of paint. He was a man of no force of character, but on my soul, I think he loved her with all the sordid little heart was left him after forty years of selfishness. She had been but indifferent before; he needed no prophet to tell him that now he had made himself detested. He was ready for a right-about-face, but the matter had passed out of his hands. The beaks set on me and pinned my hands to my sides. Nor did I offer any resistance, for I had elected to play the game out by effrontery, as I had begun it.

"Be not so rough, my good fellows," I drawled. "Faith, you manhandle one most vilely. I would have you know I am an officer in His Majesty's service. A pox on you, what mad notion is in your heads?"

"You may be what you say you are, sir," the fellow answered civilly enough. "But you fit the description of the rebel Carteret, and our runners have brought word that he was nearing London. This gentleman, too, tells a story that must be investigated."

"Perdition take him and his stories!" I cried, and my anger would have made the fortune of a play-actor. "Can a gentleman not attend a public ball without having the beaks blundering in on him with some wooden-headed fool to lead the way? Are you all drunk or mad?"

"What a to-do is here about nothing!" cried My Lady impatiently. "Sure, there are many here to identify you, Captain Macquoid. With whom did you come to the rout?"

I took my cue on the instant.

"With Sir John Ludwyck, Mistress Phyllis. Lard, let us send for him and be done with this foolery!"

My Lady stepped to the door and bade a powdered footman find Sir John for her. We waited his arrival in silence, broken

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

"'CAPTAIN MACQUOID,' I CORRECTED STIFFLY."

Digitized by Google

Original from
UNIVERSITY OF MICHIGAN

only by the fierce tapping of a dainty foot upon the floor. Mistress Phyllis covered her anxiety under a mask of frowning impatience, but the color came and went in her face, and the pulse beat clear in her white neck. Her troubled eyes met mine once, and she faintly answered my smile, but I knew the gloom of dread was heavy on her heart.

Came young Ludwyck into the room presently, who read the situation at a glance and gayly ignored it. He blithely vowed he had been on the hunt for Mistress Westmacott an hour along with a dozen other gentlemen. And was Captain Macquoid's life insured, that he dared take such risks of sudden death at the hands of the disappointed bucks?

The catchpolls were plainly disconcerted at his immediate identification of me, but yet not quite convinced. As luck would have it, old Lord Brooke bore down upon us in the nick of time, agog with compliments to Phyllis, and with a little nod of recognition to me.

"Do you know this gentleman, Lord Brooke?" asked one of the bailiffs quickly.

"Know him? Gog's life! Of course I know him. Captain Macquoid, your most obedient. Met him——"

"It doesn't really matter where you met him," interposed Miss Phyllis tartly. "Alackaday! Is here not evidence enough? First I recognize him as Captain Macquoid, then Sir John, and lastly Lord Brooke. Shall we send for His Royal Highness the Prince of Wales?"

"But Mr. Blanke says—" began the bailiff dubiously.

"What does Mr. Blanke say?" stormed the little lady. "I have known this gentleman all my life. We were brought up side by side on neighboring estates. Forsooth! I ought to know him. But what does Mr. Blanke say? I hear him say nothing. He seems to me to stand there like a wart, a necessary evil, but scarcely an ornamental one. Speak out, Sir Silent, unless that you be dumb," she taunted, as the fine ladies of the period were wont to do.

Old Brooke grinned at him out of toothless gums, and Ludwyck laughed outright in his face, for Blanke looked his name to the life.

"Ah—er! I thought that— Er!—that——"

"How lucid!" commented the lady scornfully, and at Blanke's dismal face we all laughed again.

The chief bailiff took note of our unconcern and his embarrassment, decided he had come on a fool's errand, and, after an apology or two, took himself and his men out of the room. Blanke made to follow, but at a whispered word from Ludwyck the old lord linked arms with the informer, and carried him off to the assembly room.

"Egad! I'll just take you with me, Blanke, or you'll be making a fool of yourself again," Brooke told him with frank insolence, and the two men passed out of the room and out of my life.

Ludwyck followed them to order his coach brought round to the back gate, where I might slip in unobserved. I was alone again with Phyllis, and what happened then is not a part of this tale. Five minutes later Ludwyck's boyish face showed in the doorway.

"God keep you, dearest," I cried brokenly.

"And you, Dale. Oh, much more you than I, and bring us together when this cruel war shall close," she sobbed.

I tore myself away, and followed the young Englishman through dark winding passages out into the night. For a week he kept me hidden, then passed me over to Dunkirk by means of a smuggler with whose owner he was acquainted. From Dunkirk I sailed shortly for Boston, and within six months was once more astride the quarterdeck of a sloop which floated the stars and stripes.

To me it seems that the story should end here, but there is one looking over my shoulder and reading these lines who says I have left out the most important part.

"You haven't said a word about little Ludwyck, you goose," she pouts. "'Oo doose," repeats that young man disrespectfully, and clambers to the lap of his father, Commodore Carteret.

And on my soul, I think My Lady is right, for Master Ludwyck is in a fair way to become admiral of the Carteret squadron if his friends and relatives continue to spoil him as they have begun.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

WHERE EARTHQUAKES WRITE THEIR AUTOGRAPHS

By Ludlow Brownell,

Author of "Tales from Tokio."

Illustrated with Drawings made from Photographs.

JAPANESE EARTHQUAKE-PROOF HOUSE.

THE world's earthquake headquarters are at Shide, Isle of Wight, and, oddly enough, in a stable. But though humble the building be, every able quake of the ten thousand a year has to report there promptly and have its picture taken. The owner of the stable insists on this. He is John Milne, a Fellow of the Royal Society, who for twenty years was Professor of Geology and of Mining in the Imperial University in Tokio, Japan.

Every earthquake of any pretensions at all, whether in Japan, Alaska, Kamschatka, or at the bottom of the deepest sea (where, indeed, most quakes originate), sends its signature through the earth direct to Professor Milne's stable. Then, to make sure, it sends out "repeats" rippling along the earth's surface east and west. These repeats reach the stable, in due course, from opposite directions and establish the genuineness of the through message.

But quite as unique as his stable will be Professor Milne's new earthquake observatory. Here instruments will be constantly on the watch, and will report to him if the earth's crust humps itself up so much as an inch five hundred miles away. So delicate are these Milne pendulums that the pressure of the dew on the ground outside of the observatories, and even light and shade, affect them. They bend towards a shadow, swinging in the direction of that side of the building which is the damper and therefore the heavier, while the sunny side, being the drier, exerts less pressure and does not tip things so much.

Little bendings are in progress all the time. The "immovable" hills are bowing and scraping to each other constantly. Every evening, as the dew settles in the valleys between them, they nod one to another. So, likewise, do the mountains, even to a greater extent. Gravity is tugging all the time. And in London, too, where earthquake sensations are practically unknown, the earth bends daily, and the buildings, like the hills and the mountains, nod to their friends opposite when the morning traffic begins. On Sunday, usually, their manners take a rest, excepting in such places as Petticoat Lane, where business flourishes in as lively a fashion as in Paris. Heine said that even the trees made obeisance to Napoleon the First when he entered Berlin. This was imaginative, yet truthful, for the weight of the crowd along Unter den Linden made a tilting sufficient for Professor Milne's pendulums to have recorded distinctly. One might say the crust of the earth acts like a steel spring, it bends so easily.

Faults, as geologists call certain breaks in strata, show where great pressure has made the spring give way. Ten years ago such a fault occurred in the central part of Japan, ruining large areas of cultivated land and destroying close upon ten thousand lives. This disaster cost the Mikado's government £3,000,000. The old chalk cliffs at the Isle of Wight show many such faults. The stratum on which the professor's stable stands crumpled up during that process of slow compression which formed the Alps. His instruments are independent, and rest on blocks of stone that go down into the chalk without touching the buildings round them.

All the earthquake signatures from the various parts of the earth come through this chalk—not an ideal material for transmitting, one would think, but the professor works with it very well. These signatures are in great variety, and make interesting reading, for they show character and tell much about themselves and their conditions. The professor, of course, is an expert in

Digitized by Google

Original from UNIVERSITY OF MICHIGAN

PROFESSOR MILNE WATCHING, AT THE ISLE OF WIGHT, RECORDS FROM BORNEO, JAPAN, ALASKA, AND OTHER PLACES.

their chirography. The number of the small letters in the signatures, for instance, which, as earthquakes write, are always at the beginning, tells him how far the quake has travelled, while the large letters, like old-fashioned "S's," tell of the intensity. As he knows all the "centres" of first-rate importance—that is, the places where the great earthquake troubles originate—he can guess, with considerable likelihood of being right, which centre sent the message.

For instance, there is the Tuscarora Deep, which has sent so many fearful tidal waves against Japan's east coast; another, off the coast of Ecuador, which has done great damage in its time, and has sent great waves eight thousand miles across the Pacific; another in the Bay of Bengal; still another, newly found near the Isle of Guam, the deepest bottom known; one, also, in the mid-Atlantic not far north of the equator, which made so much trouble for Charleston, S. C., U. S. A.; and one somewhere off the coast of Alaska. Any one of these is fairly suspicious, for it is ready to act whenever opportunity occurs.

The instruments, which the professor has ready in his stable for automatic attachment to all able earthquakes, are rather simpler in appearance than one would expect, considering the work they do. They are the result of a score of years' experimenting. The pen-points that do the writing are fine hairs of glass on the ends of pendulums which the professor has arranged to swing horizontally. In the stable is a seismograph, as he calls it, which writes on a long strip of paper covered with lamp-black, and in the carriage house a camera, always ready to photograph a quake. To obtain a truthful negative depends on the pendulum. A ray of light is reflected from the end of the pendulum, and records automatically on a roll of sensitized paper which runs over a pulley turned by clockwork. When there is a quake the pendulum swings, the ray of light moves back and forth, and there is a photograph—something that resembles a picture of a distaff of the days of spinning-wheels.

In the new building, which is just beginning work, the principal object, as regards size, is a lamp-post, one that the professor picked up at a bargain, and put to a pur-

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

pose hardly contemplated by the man who made it. This post stands over in the corner on the same side as the entrance, and serves as the upright for the pendulums. One of the pendulums points south and the other west. They have heavy weights at the end to insure steadiness, and glass pens for jotting down their earthquake impressions of Borneo, Japan, Alaska, and other places. The pendulum pointing south writes with an arm that runs along parallel to the other pendulum. In this way Professor Milne obtains two signatures side by side on the revolving cylinder he uses for receiving records.

There is a dark room in here, as well as one in the stable, for general photographic work. Besides, there are two stone columns running down into the chalk and free of all connection with the house. These the professor will use for those instruments that need to be isolated from ordinary vibrations.

With the instruments in his stable the professor has shown the earth to be a strangely restless body, shivering all over every thirty seconds, and heaving up its crust over thousands of square miles of surface at a time in stupendous sighs once in seven days, taking, as it were, a Sunday afternoon nap.

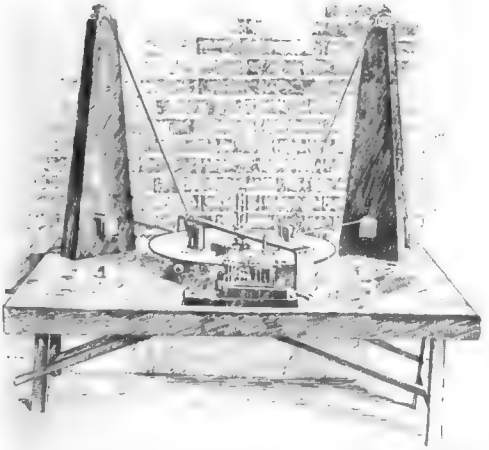
He has also located many of the centres from which earthquakes emanate, and has shown that ninety per cent. of the shocks in 1899, for example, originated at great depths beneath the sea. If the knowledge he has accumulated in his studies of earth vibrations, quivers, shakes, and undulations had been at hand when the cable companies laid out their routes they could have saved £800,000 by avoiding the danger places Professor Milne has marked on his charts. It is safe, too, to say that engineers would have built hundreds of railways and bridges differently if they had had the benefit of the latest researches in earthquake construction.

In shaky countries like Japan it would be difficult to overestimate the value of Professor Milne's deductions. The Japanese Government appreciates this, for it long since established a chair of seismology in the Imperial University, and has put up some nine hundred stations for observing its superabundant tremors, and the Mikado has decorated the professor with an order of particular merit, making him "Chokunin." The government is now at work on a seismic survey of the empire, and will publish as soon as possible a map, colored variously according to quakiness, dark for the most unsteady parts, and light for the parts that quake least. Other earthquake countries will follow Japan's example; thus has the Land of the Rising Sun, though the youngest of the Powers, begun already to teach her teachers.

Japan is rather responsible for seismology anyway. If she had not engaged Professor Milne to teach her geology and mining, he might have spent his days on firmer terra, so to speak, and never have investigated earthquakes, nor invented seismographs for them to write with, nor seismo-cameras to take their photographs.

So it is that in Shide, up by the golf course just on the western edge of Newport, where even the railways with the mails are not too certain, there is a man who can tell you of an earthquake at the antipodes a few minutes after it has happened, and, what is more, has taught others, in many parts of the world, to do the same thing.

Professor Milne receives reports through the centre of the earth by vibrations that travel about four hundred miles a second. This means twenty minutes for the trip. Such a speed shows the rigidity of the earth to be greater than any metal or other substance scientists have knowledge of—"two and one-half times that of glass, for instance," says Professor Milne, "and glass is more rigid than the finest steel." This was an interesting discovery, for it is an indorsement of Lord Kelvin's egg demonstration.



A SEISMOGRAPH FOR WRITING THREE EARTHQUAKE SIGNATURES SIMULTANEOUSLY ON THE CIRCULAR PLATE.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

AN EARTHQUAKE STRIKING THE BASE OF A SQUARE COLUMN CAUSES IT TO SWAY CORNERWISE.

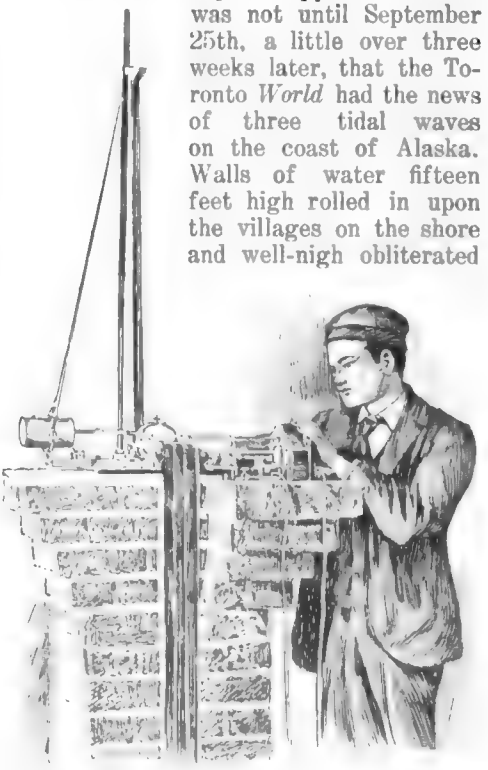
Lord Kelvin used to illustrate his idea of a solid rather than a liquid interior for the earth by spinning two eggs, one raw and the other hard-boiled. The hard-boiled egg spun much the longer time. In fact, the raw egg wobbled and stopped in a moment. Would not the earth have stopped spinning on its axis long ago, and could it possibly send earthquake despatches through its very centre, if it were not solid within?

In reading the signatures of the different earthquakes, it is interesting to compare the writings. The form of a signature—or perhaps it would be more accurate to say the form of the combination of signatures made by joining together the one that travels through the earth with the one that travels round it—gives a very clear idea of the distance the vibrations have travelled. Take the ones from Alaska, for example. Professor Milne has had many reports from that far-away region. He did not know, of course, where the quake was from until he had seen the record in his stable, and had compared it with signatures from other parts of the world, but he knew how far away it was. The other signatures that helped him out came from stations where observers had set up his seismographs.

There are some thirty of these stations scattered about the world: in North and South America, Europe, Asia, and Africa. Among those that helped particularly to fix the locality of these interesting shocks were Kew, Toronto, Victoria (British Columbia), San Fernando (Spain), Bombay, Batavia, Mauritius, Madras, Calcutta, and Cape of Good Hope.

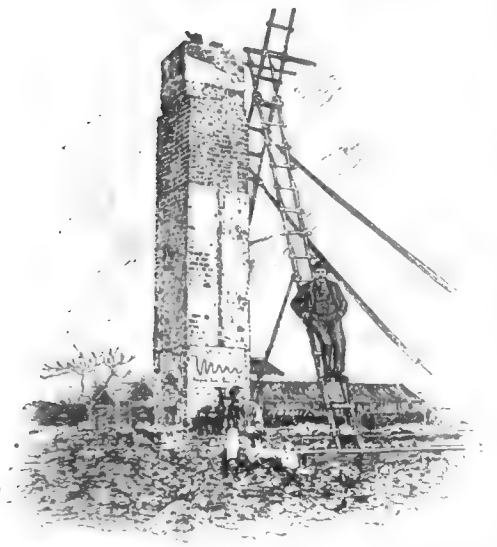
An interesting series of signatures from an Alaska earthquake of September 3, 1899, showing records from Toronto, San Fernando, Kew, Cape of Good Hope, Bombay, and Batavia, may be seen on page 111. This quake was from a region that has excited a great deal of interest lately—one that the professor looks upon as choice hunting-ground, albeit the "ground" is miles below the surface of the North Pacific Ocean. Ocean surveyors have not yet gone over this region thoroughly, but the professor believes that when they do they will find an enormous hole west of Yakutat Bay.

There is no telegraph communication between Yakutat Bay and the rest of the world, but there is excellent seismic communication, as the signatures show. Professor Milne at Shide, ten thousand miles away from the centre of disturbance, knew about it the day it happened. But it was not until September 25th, a little over three weeks later, that the Toronto *World* had the news of three tidal waves on the coast of Alaska. Walls of water fifteen feet high rolled in upon the villages on the shore and well-nigh obliterated



SHINOBO HIROBA, PROFESSOR MILNE'S ASSISTANT, WATCHING AN EARTHQUAKE WRITE ITS SIGNATURE.

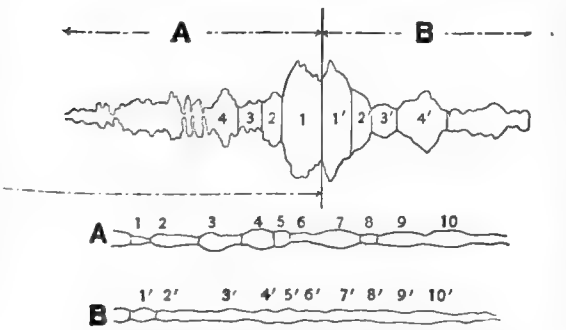
Digitized by Google
Original from UNIVERSITY OF MICHIGAN



PROFESSOR MILNE IS ON THE LADDER WHILE THE WRITING APPARATUS IS AT THE TOP OF THE FRAMEWORK, WHERE IT IS CONNECTED WITH THE CHIMNEY. AS THE CHIMNEY SWAYS, IT WRITES. A COPY OF THE SIGNATURE IS SHOWN ON THE PLACARD AT THE BASE.

them. Islands sank many fathoms beneath the sea, so that now only the tops of their tallest trees show above the surface. On the Island of Kayak, just opposite Yakutat, there was a graveyard, which one may see distinctly now down through the clear water.

The ripples of the earth's crust that brought these signatures to Professor Milne's seismographs were from a foot to a foot and a half in height, and from twenty to thirty miles in length. They travelled at the rate of a little under two miles a second, and came along at intervals of about fifteen seconds. These ripples show large in the signatures, for they make the horizontal arms,



A. AN EARTHQUAKE RECORD. *B*. THE ECHO. THE SMALL NUMBERS SHOW THE CORRESPONDING SECTIONS OF THE QUAKE.

the pen-holders of the seismographs, swing through a wider interval than do the more direct messages which come through the earth. The through messages are of a different kind from the surface ripples; they are tremors, series of contractions and expansions of the rigid material of the earth's inside. In the signature of an earthquake the distance from the starting-point of the through message to the starting-point of the surface message indicates the distance between the observatory and the centre of disturbance.

In his report on the earthquakes of 1899, which the Royal Society Committee for Seismological Investigations will publish soon, Professor Milne, who is secretary for the Committee, says:

"Earthquakes from the same district will arrive at distant observing-stations at times, the distance between which will be constant. If, for example, we have once determined the difference in time at which an earthquake originating off the coast of Japan arrives at Batavia, Bombay, Cape of Good Hope, Shide, etc., whenever these differences are repeated at four or more stations, without knowing anything about observations in Japan, we can at once say where such an earthquake has originated. . . . If the large waves of an earthquake reach stations A, B, C, D, etc., the radii of which are respectively four times 1.6 degrees, then ten times 1.6 degrees, twenty times 1.6 degrees, etc., will be the centre of the origin required. The constant 1.6 degrees means that the actual velocity for large waves is taken at 1.6 degrees per minute, or about three kilometres (1.86 miles) a second. . . .

"The operation of drawing these circles is carried out on a slate globe. For a complete solution, observations are required from at least four stations. With only three observations we are left to choose between two possible centres, but as these may be widely separated there is usually little difficulty in selecting the one required."

Sometimes Professor Milne receives the signature over again, showing on a smaller scale the preliminary tremors that have come through the earth, the great "shock" waves that have travelled round, the huge surface ripples, and then the waves of subsidence. These repetitions he calls "echoes." The waves of the earth-crust may rebound from some cliff or ledge, just as ripples are reflected from the edge of a pond back towards

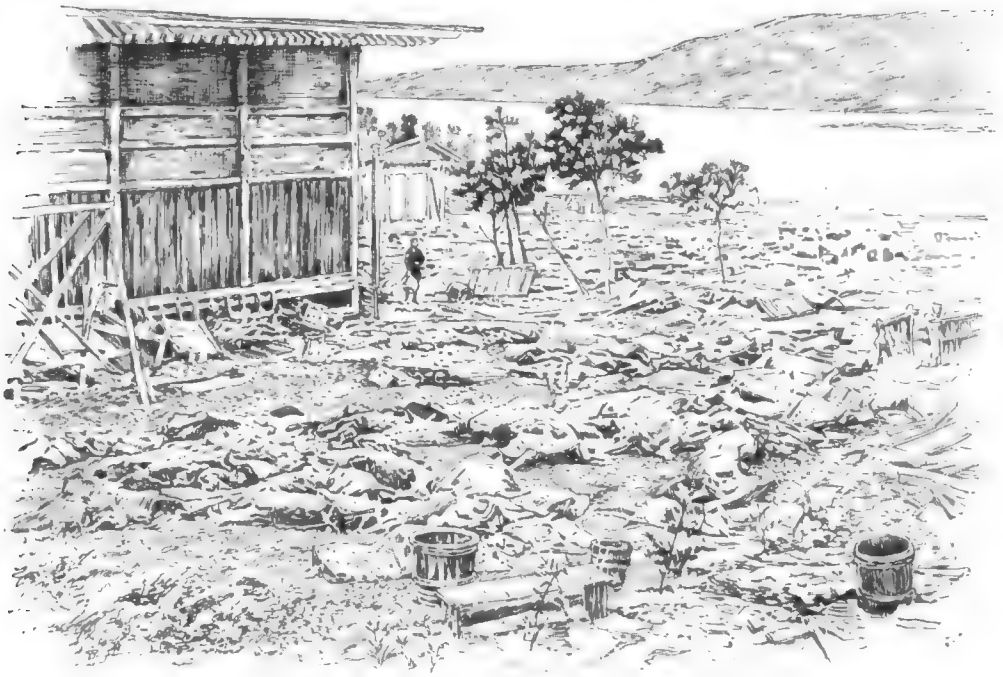
Digitized by Google
Original from UNIVERSITY OF MICHIGAN

their centre of origin, or as sound waves are reflected from a wall.

Like sound waves, too, earthquake waves have rhythm, harmony and discord. Professor Milne has made use of the principle of discord in securing the safety of buildings. He has found the "pitch" of chimneys, for instance; that is, the period of their swaying. He treated the chimney as he would a tuning-fork of which he wished to determine the frequency of vibration. In the same way he got the "pitch" of houses. Then, knowing the frequency of earthquake vibrations, he made rules for building chimneys and houses out of tune with earthquakes. This prevented the house from "joining in." The chimney and the house must be in harmony, however, or there will be trouble in the household.

Professor Milne has had many occasions to point this out in the various foreign communities he is familiar with in earthquake countries. Often the house has broken itself to pieces by banging into a chimney that was vibrating a diminished fifth or a minor seventh below. Even a semitone is sometimes fatal, as was the case with several chimneys a builder had bound with iron bands to houses. When the shocks came the bands cut through the chimneys as if they were made of so much chalk instead of brick.

Japanese architecture has received much attention from the Professor and also from his friend Josiah Condor, of the Institute of British Architects. From the studies of these experts it would seem that the statement that a people know better what is best for themselves than do outsiders is not absolute truth, for both Milne and Condor say that the ordinary Japanese house is anything but ideal, from the earthquake view-point,

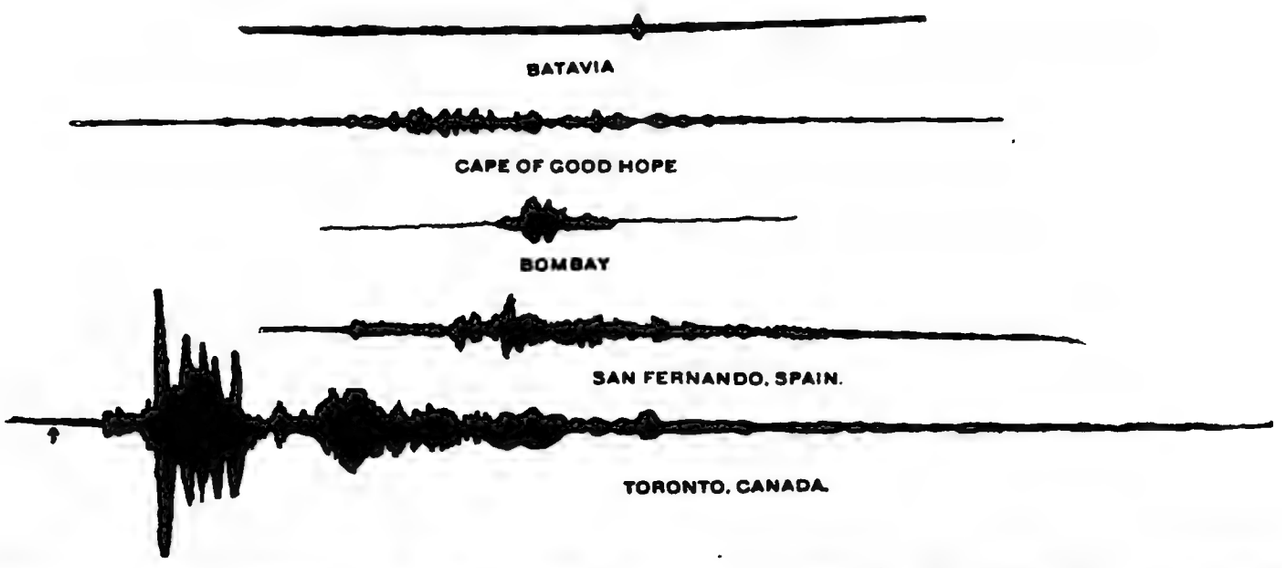


AFTER THE TIDAL WAVE THIRTY THOUSAND BODIES LAY ALONG THE COAST OF JAPAN.

while Japan is the quakiest country in the world. The heavy roofs are bad. The tops of things should be light in Japan; but these roofs are always heavy, and when they get a-swinging they break off and crush everything in reach. After a bad earthquake in Japan, the stricken district, as Professor Milne says, appears to be strewn with gigantic saddles. These are the fallen roofs. Again, it would be far better to tie rafters and beams and uprights together by iron bands than to mortise them. Mortising weakens the timbers and helps the weighty roof to come to earth.

The Professor's investigations with his

Digitized by Google
Original from UNIVERSITY OF MICHIGAN



EARTHQUAKE SIGNATURES FROM THE GREAT ALASKA SHOCK OF SEPTEMBER 3, 1899, RECORDED BY PROFESSOR MILNE'S INSTRUMENTS IN DIFFERENT PARTS OF THE WORLD.

seismographs and other instruments have been able to show the exact course of an earthquake particle during a shock, and Professor Seikiya, now occupying the chair of seismology in the Imperial University in Tokio, to represent this course has bent a wire. After looking at it one wonders how the earth holds together, why it does not float off as dust and lose itself in space. The wire looks like a matted tangle of yarn.

In the great Gifu quake of 1891 the earth, besides dropping twenty feet in sections of forty to sixty miles at a time, shook to-and-fro with frightful rapidity in quivering waves about a foot in width. There was an upward impetus to the earth particles also, despite the fact that the surface fell twenty feet. This had a rate of about four hundred feet a second. One effect of it was that houses weighted by heavy roofs sank up to the eaves, and another, that gateposts without top weights, and therefore free to act, jumped about as though playing leapfrog. Some posts took a half-dozen jumps of four or five feet along the surface and then fell in their tracks. Occasionally one alighted so hard after the last jump that it remained upright ten yards from where it started, and in property where it had no business to be. A shock of the fifth of the force of the Gifu quake would demolish London in thirty seconds. Wooden houses in the suburbs might remain standing, however, for their construction affords some play.

The Charleston earthquake in 1886 was a severe one, and scientists have estimated something of its energy. Professor Milne says, speaking roughly, 24,000,000,000,000 foot-pounds for an area ten miles square. To produce a shock of such force, let anyone drop a 24,000-ton ball from a height of 190 miles.

Professor Milne disclaims ability as an earthquake prophet, although he came to have something of a reputation in that line while in Japan. This was through his having distributed earthquake machines among his friends in various parts of the empire and asking them to collect records for him. They did so gladly, for the Professor's enthusiasm was contagious. Occasionally he would wire them from his home in Tokio, saying he had a premonition that a quake was at hand and warning them to be ready for it. As there are five to six hundred quakes a year in Japan, Professor Milne says it is not strange that occasionally his premonitions were correct. On one occasion he sent a message to some folk in Yokohama just in time. It was in 1881, and for several days the Tokio seismographs had been unusually quiet. "The calm before the storm," thought the Professor. So he sent his message, and soon after it reached its destination the earth began to shake and Yokohama had more excitement on its hands than it knew what to do with. It had not quaked so in years. The Milne message became famous and every one declared the Professor was genuinely a prophet.

Some went so far as to say that he had a personal influence over earthquakes; his appearance in any locality was a signal for everything to shake. Once, as he arrived at the Fujiya Hotel, Miyanoshita, a popular resort near Yokohama, a lady well known in

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

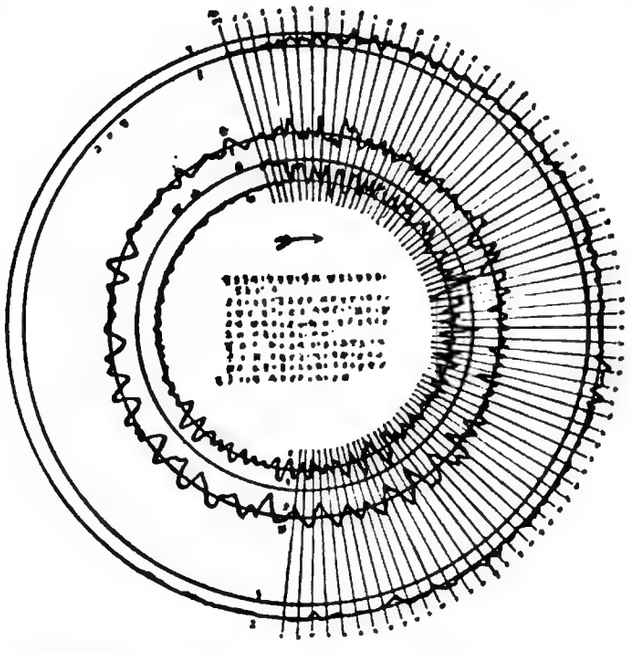
Yokohama society greeted him with: "Oh, Professor Milne, I'm so glad to see you. You haven't any earthquakes with you, have you?" But, apparently, he had, for there was a lively one in evidence a moment later. Incidents like these are remembered and make a reputation for a man whether he wishes it or not, so that of the hundreds of foreigners Japan has in her employ probably none has a fame so widely spread as "Earthquake" Milne.

Although the seismograph does not foretell a quake, it can be of service, as the professor points out, in giving warning of the tidal waves that often follow submarine earthquakes. These waves, which come in like a tremendously high tide, do vast damage. On the east shores of Japan in 1896 nearly thirty thousand persons perished in the sudden rising of the waters. Vessels out at sea sailed over the waves without any one on board suspecting something unusual was taking place. The undulations were so broad and the rise so gentle that there was nothing to distinguish them from the ordinary surface of the sea. These waves travel at a rate that would take them across the Pacific in twenty-four hours. This is rapid travelling, but a warning which the seismograph could give at the time the wave started would afford plenty of time for coast dwellers to climb up out of the way.

Near Iquique there is a United States war vessel which has had a remarkable experience with tidal waves. On the first occasion, in 1868, a wave took her a mile inland, and later, in 1877, another wave carried her in two miles farther, where she still remains, although the family that has taken up its abode in her expect to get well across the country by the end of the present century.

In Australia there are two earthquake observatories, one at Sydney and another at Melbourne. It would have been a great deal of money saved to the colony if she had had a few of Professor Milne's instruments several years ago, when her three cables suddenly ceased to work and left her completely shut off from the world. There had been rumors of war, and when the break occurred the Australians thought some hostile power had cut the cables and would soon swoop down upon the colonies. The Governors called out the Militia and the Naval Reserves to patrol the coast, and there was great excitement for nearly three weeks. Business was at a standstill until news came that it was only an earthquake, which had lowered the ocean's bottom, making the sea between Java and Australia deeper by many fathoms. The floor of the sea had taken down the cables along with it.

Professor Milne believes, from the experience he has had, that seismology will gain support from governments, from the great cable companies interested in learning the location of unstable regions in sea beds, and from private individuals who wish to advance scientific knowledge. Certainly its practical benefits are very obvious, and as a scientific pursuit there are few lines of investigation more fascinating.



AN EARTHQUAKE SIGNATURE WRITTEN ON A CIRCULAR PLATE BY THE FINE POINTS OF THE SEISMOGRAPH FINGERS.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

THE OLD GRAY EAGLE.

By Booth Tarkington,

Author of "The Gentleman from Indiana," "Monsieur Beaucaire," etc.

MME. BERNHARDT and M. Coquelin were playing "L'Aiglon" in Indianapolis. Toward the close of the second act people began to slide down in their seats, shift their elbows, or casually rub their eyes; by the close of the third, most of the taller gentlemen were sitting on the smalls of their backs with their knees as high as decorum permitted, and many were openly coughing; but when the fourth was finished, active resistance was defeated; hopelessness prevailed; the attitudes were those of the stricken field; the over-crowded house was like a college chapel during an interminable compulsory lecture. Here and there—but most rarely—one saw an eager face with bright eyes, head bent forward, and body spellbound, still enchantedly following the course of the play. Between the acts the orchestra pattered rag-time and inanities from the new comic operas, while the audience in general took some heart. When the play was over, we were all enthusiastic; the enthusiasm, however vehement in the words employed to express it, was somewhat subdued as to the accompanying manner, which consisted, mainly, of sighs and resigned murmurs. In the lobby, a thin old man with a grizzled chin-beard dropped his hand lightly on my shoulder, and greeted me in a tone of plaintive inquiry:

"Well, son?"

Turning, I recognized a patron of my early youth, in whose woodshed I had smoked my first cigar, an old friend whom I had not seen for years; and to find him there, with his long, dust-colored coat, his black string tie and rusty hat, brushed on every side by opera cloaks, much fuss and the finest feathers, was a rich surprise, warming to the cockles of my heart. His name is Tom Martin; he lives in a small country town, where he commands the trade in Dry Goods and Men's Clothing; his speech is pitched in a high key, is very slow, sometimes whines faintly; and he always calls me "Son."

"What in the world!" I exclaimed as we shook hands.

"Well," he drawled, "I dunno why I shouldn't be as meetropolitan as anybody. I come over on the afternoon accommodation for the show. Let's you and me make a night of it. What say, son?"

"What did you think of the play?" I asked, as we left the shouting for carriages behind us and turned up the street toward the club.

"I think they done it about as well as they could."

"That all?"

"Well," he rejoined with solemnity, "there was a heap *of* it, wasn't there!"

We talked of other things, then, until such time as we found ourselves seated by a small table at the club, old Tom somewhat uneasily regarding a twisted cigar he was smoking and plainly confounded by the "carbonated" syphon, for which, indeed, he had no use in the world. We had been joined by little Fiderson, the youngest member of the club, whose whole nervous person jerkily sparkled "L'Aiglon" enthusiasm.

"Such an evening!" he cried, in his little spiky voice. "Mr. Martin, it does one good to realize that our country towns are sending representatives to us when we have such things; that they wish to get in touch with what is greatest in Art. They should do it often. To think that a journey of only seventy miles brings into your life the magnificence of Rostand's point of view made living fire by the genius of a Bernhardt and a Coquelin!"

"Yes," said Mr. Martin, with a curious helplessness, after an ensuing pause which I refused to break, "yes, sir, they seemed to be doing it about as well as they could."

Fiderson gasped slightly. "It was magnificent! Those two great artists! But over all the play—the play! Romance new born; poesy marching with victorious banners; a great spirit breathing! Like Cyrano—the birth-mark of immortality on this work!"

There was another pause, after which old Tom turned slowly to me, and said: "Homer Tibbs's opened up a cigar-stand at the

Digitized by Google

Original from UNIVERSITY OF MICHIGAN

deepo. Carries a line of candy, magazines, and fruit, too. Home's a hustler."

Fiderson passed his hand through his hair. "That death scene!" he exclaimed at me, giving Martin up as a log accidentally rolled in from the country. "I thought that after 'Wagram' I could feel nothing more; emotion was exhausted; but that magnificent death! It was tragedy made ecstatic; pathos made into music; the grandeur of a gentle spirit, conquered physically but morally unconquerable! Goethe's 'More Light' outshone!"

Old Tom's eyes followed the smoke of his perplexing cigar along its heavy strata in the still air of the room, as he inquired if I remembered Orlando T. Bickner's boy Mel. I had never heard of him, and said so.

"No, I expect not," rejoined Martin. "Prob'ly you wouldn't; Bickner was governor along in *my* early days, and I reckon he ain't hardly more than jest a name to you two. But *we* kind of thought he was the biggest man this country had ever seen, or was goin' to see, and he *was* a big man. He made one president, and could have been it himself, instead, if he'd be'n willing to do a kind of underhand trick, but I expect without it he was about as big a man as anybody'd care to be; governor, senator, secretary of state—and just owned his party; and, my law! the whole earth bowin' down to him; torchlight processions and skyrockets when he come home in the night; bands and cannon if his train got in, daytime; home-folks so proud of him they couldn't see; everybody's hat off; and all the most important men in the country following at his heels—country, too, that'd put up consider'ble of a comparison with everything Napoleon had when he'd licked 'em all, over there.

"Of course he had enemies, and, of course, year by year, they got to be more of 'em, and they finally downed him for good; and, like other public men so fixed, he didn't live long after that. He had a son, Melville, mighty likable young fellow, studyin' law when his paw died. I was livin' in their town then, and I knowed Mel Bickner pretty well; he was consider'ble of a man.

"I don't know as I ever heard him speak of that's bein' the reason, but I expect it may've be'n partly in the hope of carryin' out some of his paw's notions, Mel tried hard to git into politics; but the old man's enemies jumped on every move he made, and his friends wouldn't help any; you can't tell why, except that it generally *is* thataway; and folks always like to laugh at a great man's son and say *he* can't amount to anything. Of course that comes partly from fellows like that ornery little cuss we saw to-night, thinkin' they're a good deal because somebody else done something, and the somebody else happened to be their paw; and the women run after 'em, and they git low-down like he was, and so on."

"Mr. Martin," interrupted Fiderson, with indignation, "will you kindly inform me in what way 'L'Aiglon' was 'low-down'?"

"Well, sir, didn't that huntin'-lodge appointment kind of put you in mind of a camp-meetin' scandal?" returned old Tom quietly. "It did me."

"But——"

"Well, sir, I can't say as I understood the French of it, but I read the book in English before I come up, and it seemed to me he was pretty much of a low-down boy; yet I wanted to see how they'd make him out; hearin' it was thought, the country over, to be such a great *play;* though to tell the truth all I could tell about *that* was't every line seemed to end in 'awze'; and 't they all talked in rhyme, and it did strike me as kind of enervatin' to be expected to believe that people could keep it up that long; and that it wasn't only the boy that never quit on the subject of himself and his folks, but pretty near any of 'em, if he'd git the chanst, so't almost I sort of wondered if Rostand wasn't that kind."

"Go on with Melville Bickner," said I.

"What do you expect," retorted Mr. Martin with a vindictive gleam in his eye, "when you give a man one of these here spiral staircase segars? Old Peter himself couldn't keep straight along one subject if he tackled a cigar like this. Well, sir, I always thought Mel had a mighty mean time of it. He had to take care of his mother and two sisters, his little brother, and an aunt that lived with them; and there was mighty little to do it on; big men don't usually leave much but debts, and in this country, of course, a man can't eat and spend long on his paw's reputation, like that little Dook of Reicshstod——"

"I beg to tell you, Mr. Martin—" Fiderson began hotly.

Martin waved his bony hand soothingly.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

"Oh, I know; they was money in his mother's family, and they give him his victuals and clothes, and plenty, too. *His* paw didn't leave much either—though he'd stole more than Boss Tweed, I suppose—and, just lookin' at things from the point of what they'd *earned*, his maw's folks had stole a good deal, too; or else you can say they were a kind of public charity; old Metternich, by what I can learn, bein' the only one in the whole possetucky of 'em that really *did* anything to deserve his salary—" Mr. Martin broke off suddenly, observing that I was about to speak, and continued:

"Mel didn't git much practice, jest about enough to keep the house goin' and pay taxes. They lived some ways out from town; and he sold the horses to keep the little brother in school, one winter, and used to walk in to his office and out again, twice a day, over the worst roads in the State, rain or shine, snow, sleet, or wind, without any overcoat; and he got kind of a skimpy, froze-up look to him that lasted clean through summer. He worked like a mule, that boy did, jest barely makin' ends meet. He had to quit runnin' with the girls and goin' to parties and everything like that; and I expect it may have been some hard to do; for if they ever *was* a boy loved to dance and be gay, and up to anything in the line of fun and junketin' round, it was Mel Bickner. He had a laugh I can hear yet—made you feel friendly to everybody you saw; feel like stoppin' the next man you met and shakin' hands and havin' a joke with him.

"Mel was engaged to Jane Grandis when Governor Bickner died. He had to go and tell her to take somebody else—it was the only thing to do. He couldn't give Jane anything but his poverty, and she wasn't used to it. They say she offered to come to him anyway, but he wouldn't hear of it, and no more would he let her wait for him; told her she mustn't grow into an old maid, lonely, and still waitin' for the lightnin' to strike him—that is, his luck to come, and actually advised her to take 'Gene Callender, who'd ben pressin' pretty closte to Mel for her before the engagement. The boy didn't talk to her this way with tears in his eyes and mourning and groaning. *No*, sir! It was done *cheerful*; and so much so that Jane never *was* quite sure afterwerds whether Mel wasn't kind of glad to get rid of her or not. Fact is, they say she quit speakin' to him. Mel *knowed:* a state of puzzlement or even a good *mad's* a mighty sight better than bein' all harrowed up and grief-stricken. And he never give her—nor any one else—a chanst to be sorry for him. His maw was the only one heard him walk the floor nights, and after he found out she could hear him he walked in his socks.

"Yes, sir! Meet that boy on the street, or go up in his office, you'd think that he was the gayest feller in town. I tell you there wasn't anything pathetic about Mel Bickner! He didn't believe in it. And at home he had a funny story every evening of the world, about something 'd happened during the day; and 'd whistle to the guitar, or git his maw into a game of cards with his aunt and the girls. La! that boy didn't believe in no house of mourning. He'd be up at four in the morning, hoein' up their old garden, raised garden-truck for their table, sparrow-grass and sweet corn—yes, and roses, too; always had the house full of roses in June-time; never *was* a house sweeter-smellin' to go into.

"Mel was what I call a useful citizen. As I said, I knowed him well. I don't recollect I ever heard him speak of himself, nor yet of his father but once—for *that*, I reckon, he jest couldn't; and for himself, I don't believe it ever occurred to him.

"And he was a *smart* boy. Now, you take it, all in all, a boy can't be as smart as Mel was, and work as hard as he did, and not *git* somewhere—in this State, anyway! And so, about the fifth year, things begun to liven up a little for him; his father's enemies and his own friends, both, had to jest about own they was beat. He won some small cases in such an outrageous hand-over-hand walk-away, that half a dozen big ones fairly plumped into his lap. The day after the biggest one come in I met him on the street; he was on his way to buy an overcoat, and he was lookin' skimpier and more froze-up and genialer than ever. It was March, and up to jest about a month before things had be'n hardest of all for Mel. I walked around to the store with him, and he was mighty happy; goin' to send his mother north in the summer, and the girls were goin' to have a party, and Bob, his little brother, could go to the best school in the country in the fall.

"Well, sir, the next evening I heard Mel was sick. Seein' him jest the day before on the street, out and well, I didn't think

Digitized by Google Original from UNIVERSITY OF MICHIGAN

anything of it—thought prob'ly a cold or something like that; but in the morning I heard the doctor said he was likely to die. Of course I couldn't hardly believe it; thing like that never does seem possible, but they all said it was true, and there wasn't anybody on the street that day that didn't look blue or talked about anything else. Nobody seemed to know what was the matter with him exactly, and I reckon the doctor did jest the wrong thing for it. Near as I can make out, it was what they call appendicitis nowadays, and had come on him in the night.

"Along in the afternoon I went out there to see if there was anything I could do. You know what a house in that condition is like. Old Fes Bainbridge, who was some sort of a relation, and me sat on the stairs together outside his room. We could hear his voice, clear and strong and hearty as ever. He was out of pain; and he had to die with the full flush of health and strength on him, and he knowed it. Not *wantin'* to go, through the waste and wear of a long sickness, but with all the ties of life clinchin' him here, and success jest comin'. We heard him speak of us, amongst others, old Fes and me; wanted 'em to be sure not fergit to tell me to remember to vote fer Fillmore if the ground-hog saw his shadow election year, which was an old joke I always had with him. He was awful worried about his mother, though he tried not to show it, and when the minister wanted to pray fer him, we heard him say, 'No, sir, you pray fer my mamma!' That was the only thing that was different from his usual way of speakin'; he called his mother 'mamma,' and he wouldn't let 'em pray fer him neither; not once; all the time he could spare for their prayin' was put in fer her.

"He called in old Fes to tell him all about his life insurance. He'd carried a heavy load of it, and it was all paid up; and the sweat it must have took to do it you'd hardly like to think about. He give directions about everything as careful and painstaking as any day of his life. He asked to speak to Fes alone a minute, and later I helped Fes do what he told him. 'Cousin Fes,' he says, 'it's bad weather, but I expect mother'll want all the flowers taken out to the cemetery and you better let her have her way. But there wouldn't be any good of their stayin' there; snowed on, like as not. I wish you'd wait till after she's come away, and git a wagon and take 'em in to the hospital. You can fix up the anchors and so forth so they won't look like funeral flowers.'

"About an hour later his mother broke out with a scream, sobbin' and cryin', and he tried to quiet her by tellin' over one of their old-time family funny stories; it made her worse, so he quit. 'Oh, Mel,' she says, 'you'll be with your father——'

"I don't know as Mel had much of a belief in a hereafter; certainly he wasn't a great churchgoer. 'Well,' he says, mighty slow, but hearty and smiling, too, 'if I see father, I—guess—I'll—be—pretty—well—fixed!' Then he jest lay still, tryin' to quiet her and pettin' her head. And so—that's the way he went."

Fiderson made one of his impatient little gestures, but Mr. Martin drowned his first words with a loud fit of coughing.

"Well, sir," he observed, "I read that 'Leglong' book down home; and I heard two or three countries, and especially ourn, had gone muddling crazy over it; it seemed kind of funny that *we* should, too, so I thought I better come up and see it for myself, how it was on the stage where you could *look* at it; and—I expect they done it as well as they could. But when that little boy, that'd always had his board and clothes and education free, saw that he'd jest about talked himself to death, and called for the press notices about his christening to be read to him to soothe his last spasms—why, I wasn't overly put in mind of Melville Bickner."

Mr. Martin's train left for Plattville at 2 A.M. Little Fiderson and I escorted him to the station. As the old fellow waved us good-by from within the gates, Fiderson turned and said:

"Just the type of sodden-headed old pioneer that you couldn't hope to make understand a beautiful thing like 'L'Aiglon' in a thousand years of alternate beating and cultivating. I thought it better not to try, didn't you?"

Digitized by Google Original from UNIVERSITY OF MICHIGAN

IS THERE A DRAMATIC PROFESSION?

By Franklin Fyles,

Dramatic Critic of the "Sun," and author of "The Theatre and its People."

YES. One of the trades that have added themselves to the formerly exclusive three "learned professions" of law, medicine, and religion, is that of theatrical acting. The dictionaries define a profession as an occupation that properly involves a liberal education, or its equivalent, and mental rather than manual labor. A well-equipped actor is, therefore, a professional man. This has not long been so.

"What is your occupation?" the opposing lawyer asked of Edwin Forrest, in the trial of the divorce suit brought by Mrs. Forrest.

"By profession," and the tragedian threw his whole voice into a repetition of the word, "by profession," with a pause here for dramatic effect, "I am an actor."

"Ah?" said the lawyer, and smiled.

"Yes," said the actor, and frowned.

I heard Mr. Evarts tell that to Joseph Jefferson at a dinner-table.

"Well," said Mr. Jefferson, "the judge on the bench might have been puzzled to decide the point. The art of acting was rather indefinitely practised in those days."

But acting has since established itself, past all denial, as a profession, the members of which have advanced from vagabondage to respectability, and from the crudities of chance gifts to the excellences of methodical culture. Actors must now be accorded a professional rating. The change in public esteem of them is not yet complete, as prejudice still hinders it, but considerate people have been generally won over by the earnest, aspiring, progressive work that is being done in the theatres. Even so justly eminent an actor as Forrest stamped and bellowed his way from the circus ring to the Shakespearean stage by physical force, with none too much of intellectual guidance. There was in his day no graded road for those to take who set out for theatrical success. They had to make their way with only faint trails to follow. The journey is as arduous now, but less uncertain. The route has been laid out on direct lines, and the traveller is no more an adventurous explorer. If he is properly equipped for his journey to the stage, he is as likely to get there as though he started, instead, for bar or pulpit, studio or laboratory. It may be that Helena Modjeska thought the drama in America had reached its highest possible elevation when she made her first tour in a railway car that was as resplendent as a circus chariot; that, a little further back, Charlotte Cushman deemed herself the queen of tragic climax because members of the Lotos Club unhitched the horses from her carriage and dragged it from theatre to hotel; that Edwin Forrest, not so very much longer ago, let his bosom swell with royal pride while his adherents and Macready's fought one another to death in Astor Place; but we have come out from such foolishness regarding dramatic genius, and got into sensible ways of thinking.

The actor suffers still from adulation and derogation—just about as much from one as the other; and in both ways the harm done to him is the result of a careless feeling toward his work by a large part of the public. I do not have in mind at this moment his social standing, high or low, but am thinking of him solely as a performer on the stage. Few in an audience discern anything back of him. Whatever he does that is satisfactory is heedlessly set down to his personal credit, as though he had originated it. Even some of the reviewers write of him as "creating" a character for which he has originated absolutely nothing. The author is quite forgotten, and all the credit is instinctively given to the interpreter. This undue admiration too often makes him an absurdly vain creature, a crow strutting in the borrowed plumage of a peacock, and so pleased by his feathers that he believes himself to be the fine bird that they grew on. Night after night he hears applause that his make-believe qualities excite, but none of that which is at the same time being given to thousands of other mummers

Digitized by Google

Original from UNIVERSITY OF MICHIGAN

throughout the country. He does not bear in mind that people clap their hands as hard at a really brave trapeze man in a circus as they do at an imitation of a mimic hero in a drama, and laugh as loudly at an originally comic clown as they do at a merely interpretative comedian. As a rule, he is extravagantly appreciative of his own abilities. He becomes a coxcomb and a braggart. His self-satisfaction prevents his development of natural gifts by artistic acquirement. He ceases earnest effort, and stops short of what he might become, because adulation has weakened or destroyed his ambition.

Another hold-back to the professional advancement of the actor is the temptation to laziness. Under common circumstances, he may make his work so easy that a tendency to indolence is not resisted. Take the case of a handsome young man with a good voice and fair facility in stage speech and demeanor. His suitable appearance recommends him for employment by a manager about to bring out a new play. He is turned over to the director of the production, who handles him as though he were a lump of dough—kneads and moulds him as nearly as possible into the desired condition through a month of rehearsals, bakes him in the final form of an embellished cake, and delivers him to the voracious audience for the sweet thing that they believe he can't help being. They have no idea of the raw and flavorless lump he might be if the chief cook had not worked him over. He has been nearly inert during this process. He has done nothing that he has not been told to do, and how to do it. He has provided none of the thought that is embodied in his public performance. The author has originated the character totally, and the director has taught him how to enact it. This sightly clod has, happily, an antithesis in the actor with an intellect, who does not require to be operated like a marionette, but can and will devise ways to express fully the utmost meanings of a rôle, and who is one of those who have made a profession of his calling. But the other actor is, nevertheless, a common type. His work during the preparation of a play is much less arduous than that of his instructor, who has to drag and push him into fitness to win the approval of those who ignorantly give him credit for all that he accomplishes. This depiction of the automatic player need not be kept masculine. There are a deplorable number of actresses of the same kind. But women on the stage are, in the average, quicker than men in discernment, easier to guide, and far more docile. Their hearts and souls are oftener in their work.

The uninspired actor becomes a time-killing lounger as soon as the play for which he is hired has had its first public performance, or, at furthest, as soon as it is brought into a satisfactory condition for continuance. Thereafter, his hours of attendance at the theatre exceed four or five a day only when matinées are added, and his actual work is usually brief and easy. If he retains his place in a piece that lasts the season through, in a round of the larger cities, he becomes a veritable idler, dangerous to himself and detrimental to his profession. It is now that adulation assails him from one side and derogation from the other. He is sought by some people and shunned by others. The interest manifested in him is seldom complimentary, although his vanity may delude him to think so. He carries the poses of the stage elsewhere, and is unaware of the disdain that underlies the curiosity of many who stare at him. Or else he does rate the attention at its true worthlessness, and lets it drive him out of the best social intercourse open to him into a pernicious but sincere bohemianism, which he finds sometimes in clubs, oftener in barrooms, and oftenest among the boon companions of the stage, who live mostly in a perilously unreal and indiscreet world of their own. Thus he falls under the taboo of respectability, and goes to the devil.

Right here I feel like saying something about the discredit which stageland suffers through the moral degeneracy of some of its people. That point is unpleasant, but it is also too important to be omitted here, because it counts against the general respect for acting as a profession. I assert that the stage is not, in any general way, demoralizing to those connected with it. Few of the disreputable women engaged in acting got their wickedness at the theatre. Most of them were social outcasts before they became actresses. The stage did not degrade them. They degraded the stage. Moreover, the daughters of actors, born to and reared in the glare of the footlights, hardly ever contribute to the scandals which, to indiscriminate readers of the news of the day, seem to characterize pretty nearly all

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

players. The exploits in infamy are chiefly those of women whose repute was bad before they ever entered a theatre by the stage-door. The flagrant misbehavior is commonly among the singers and dancers employed meretriciously, or at least indecorously, in comic operas and extravaganzas, where we can hardly expect to see public viciousness accompanied by private virtues. The casts of such pieces are largely registers of social evil. In justice to those who live circumspectly, there should be plain speech about those who do not.

But run your eye down a list of star actors and actresses, or the casts in dramatic playbills, and you will find only a small ratio of names that are synonyms for profligacy. The time when individual disgrace was accounted a valuable asset in the show business is past and gone. Almost all the eminent personages of the American stage are of good reputation, and most are also of good character. The moral average of the dramatic profession is as high as that of the legal or the medical. The steady gain in this regard has had much to do with the advancement in the art of acting. The recruits during the past decade have been preponderatingly young men and girls of good rearing and education. Culture has become common back of the theatrical curtain. Ladies and gentlemen are in such a heavy majority there, that the less seemly minority is generally dominated by the prevailing politeness.

"One reason why I think we actors are becoming gentlemen," the late John Gilbert once said, "is that we treat actresses as ladies. Forty years ago profanity was the ordinary thing behind the scenes. Twenty years ago, even in as well-conducted a theatre as Wallack's, there had to be placards forbidding it. Nowadays, no such rule needs to be displayed. Why, I utter more damns in one performance of Sir Peter Teazle than I hear in a year from actors in their personal conversation with actresses."

One of the facts observable in a cheerfully critical survey of the dramatic field is that old-time humbug has been displaced to a gratifying extent by honesty. This improvement is due primarily to the changed methods of the theatrical business. The commercialism which prevails in stage affairs is shrewd and enterprising. It buys and sells dramatic art in the same way that merchants deal in goods, from the rarest curios to the commonest calicoes, from caviare for the few to canned beans for the many, from cordials to be sipped to beer to be guzzled. Just as the average of newspapers is fully as good, or a little better, than the public as a whole desires it to be, because the editor, as a rule, likes to do well rather than ill, so the present range of theatres is mostly above the grade for which there would seem to be the widest demand, thus proving that the general effort among the managers is to sell the best that the people will buy. Ample experience and capital are employed, and there is very little of the buncombe and chicanery that prevailed in the days sometimes mentioned as having been "palmy," and surely were shady. It is on this sound basis of business decency that acting has been lifted into real professionalism. If you doubt that there has been such an elevation as I am describing, do not trust your vague belief to the contrary, but examine the old files of some newspaper. Look at the irrefutable record of the advertising columns, and you will find that the plays were generally of a poorer quality than they are now. Turn to the reviews and you will see that productions equal in merit to those now usual were then exceptional. Shakespeare was being presented a quarter of a century ago by Booth, Salvini, Modjeska, and McCullough in a manner not for an instant comparable in casts or mountings with the current achievement of Sothern, Mansfield, Tree, and Irving. The scene-painter must now be an artist. The costumers' shears and needles are guided by the carefully drawn and colored pictures of experts. These niceties of art are extended to all manner of stage entertainments, the burlesques being sometimes as finely prepared as the dignified pieces that they make fun of. The work is nearly all of a professional grade.

But the acting. The name of Edwin Booth springs to your lips. Have we anything like his equal in tragedy? Surely we have not. After making due allowance for the delusion of memory and the enchantment of distance, the fact remains clear that the world has no Booth on the stage at this beginning of a century that may end without producing one. But that proves nothing against my contention that our players, as a body, are abler than those of Booth's heyday—that they have risen by merit to higher standards—that acting is

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

in a good and steadily improving condition. Audiences demand far more than they used to, and get it, too. The noisy declamation of buncombe will no longer excite a gallery, except to ridicule, and the parquet scorns it with silence that is still more damning. Characters in dramatic fiction must talk and act as persons in real life might under the same circumstances, and the author must write to that purpose, leaving it to the actors to complete the illusion of naturalness. I say "illusion," because the effect of unexaggeration, of being absolutely true to life, is not created on the stage by literal truthfulness. The acme of skill in the acting of the present day lies in such speech and pantomime as will carry the semblance of truth across the footlights by expert falsities. The fond wooer must make you believe that he breathes his forbidden love to his timid sweetheart so softly and covertly that her alert mother, in the same room, is unaware of what is going on, yet he has to make you hear and see it five times as far away. The villain whispers his plot into the private ear of a confederate, yet the furthermost boy in the gallery must get every word of it. The art of acting, as taught and practised, is directed to making an impression of verity by means that necessarily are often deceptive. In this direction the great advance has been made. All the dramatic schools, and most of the private teachers, are working in that spirit. They employ careful methods where a confusion of diversity formerly perplexed the manager who sought after the harmonious performance now attainable. I tell these things here because most people at the theatre, including many who are keenly critical of a result on the stage, have no idea of the processes that bring it about. I am seeking to demonstrate that our actors belong to a learned profession.

Art for art's sake is very lovely. But it is unpleasant to know of a genius dying from starvation. However, that hardly ever happens among actors. The laborer in the dramatic field usually gets all the hire that he is worthy of. The rank and file of capable players are well paid. The leaders are affluent, unless they are spendthrifts. I would not care to take upon myself the risk of guessing at the fortunes of the men and women who have derived them from the stage, and so, in order to gratify the characteristic American curiosity as to how some of the successes have been coined into dollars, I have had recourse to a manager close to the centre of the theatrical business. "We never know the amount of a man's estate till he dies," said he, "and actors' incomes are rather harder to find out than most persons. So I can only testify, as witnesses in court say, 'to the best of my knowledge and belief.' Some of the figures I give you are positive facts, while others are estimates based on strong probabilities. To begin, then, the actor richest in his direct earnings is Joseph Jefferson. He has drawn very large audiences during more than forty years, the plays he presents cost him nothing in royalties to their authors, his companies are moderate in the pay-roll, he divides with no partner, and his share of the gross receipts leaves no large portion to the theatre in which he appears. Lotta Crabtree is much wealthier than he, but through the increase of the capital with which she retired from the stage years ago. So is Sol Smith Russell, who has invested his savings fortunately. William H. Crane is another who has turned some of his income into accumulation. Denman Thompson would be as well off as Russell or Crane if he had not lost a considerable part of the heavy profits of his tours. An actor who made a great deal and then sunk it is Neil Burgess. The same thing is true of Edward Harrigan. The Irish comedians, Andrew Mack and Chauncey Olcott, I should put down at $20,000 each for the season, their managers making as much more. Peter F. Dailey is thereabouts. The same figures will do for those German mimics, Louis Mann and the Roger brothers. Am I getting too low in art? Well, you asked me to talk business. Weber & Fields, two more of the German dialect actors, have a joint fortune of $400,000, made by attention to the business side of their efforts. You said you were going to write an article on acting as a profession. Very well—doesn't it require just as much of professional ability in these broadly comic artists to make folks laugh as it does in Jefferson or Crane to do it politely? To get back into the irreproachably legitimate field, I could name you many stars of good degree—such as Helena Modjeska, James O'Neil, James A. Herne, Henry Miller, Sarah Cowell Le Moyne, James K. Hackett, Louis James, Kathryn Kidder, and Robert Man-

Digitized by Google Original from UNIVERSITY OF MICHIGAN

tell—whom we managers do not regard as 'money-makers.' Yet those I have mentioned in that class clear $10,000 apiece annually on the average. That isn't so bad for a calling once despised and ill-paid. There are a dozen to twenty actors and actresses getting the equal of that in salary with resident or travelling companies, with no uncertainty about it, but there's the distinction of starring to take into account.

"Coming down to the season just closed," the expert continued, "undoubtedly William Gillette has gained more money than any other person on the American stage. That isn't saying he drew more into the theatre, but his income combined that of the author of the play he used, the star actor of the leading rôle, and half the profits of the business enterprise. No doubt the aggregate was $2,000 a week for forty weeks, and it may have been much more. I believe that the most remunerated dozen American actresses during the same season were, in the order I name them, Maude Adams, Leslie Carter, Julia Marlowe, Minnie Maddern Fiske, Olga Nethersole, Viola Allen, May Irwin, Annie Russell, Mary Mannering, Ethel Barrymore, Ada Rehan, and Henrietta Crosman. I am sure that Miss Adams came first, Mrs. Carter second, and Miss Marlowe third in earnings, if not in their individual shares. Miss Adams and Mrs. Carter were made stars of by their managers, and no outsider knows the terms of the contracts, but I fancy that each actress is between $50,000 and $75,000 better off than she was a year ago. Miss Marlowe controls her own business, and all the profits of it accrue to her alone—so it is possible that she goes ahead of either of the others in money for her own bank account. Miss Nethersole, too, is her own manager, but her season was shortened by illness, and I understand that she got out with about $30,000. Mrs. Fiske's case baffles estimate owing to peculiar circumstances, and how far up towards the top of the list her name belongs is hard to say. She had a difference as to terms with the syndicate that controls most of the first-grade theatres in the country, and through which practically all the successful stars of the first magnitude make their routes. Her husband savagely assailed the six men composing the so-called trust. They had him indicted on a charge of libel, and declined to let the actress into any of their theatres. That put her to much inconvenience, because she had to use cheap houses. On the other hand, she raised the prices in them, posed persistently as a martyr in the cause of dramatic art, and, being a fine actress in a popular play, she drew generally crowded audiences. As she divides with no manager, it is possible that she stands fifth in the list, or even fourth, among the female stars with, say, $35,000 to $40,000. But I don't know. Miss Irwin is thrifty and invests shrewdly. Viola Allen was in only the second season under her first contract, and Annie Russell, Mary Mannering, and Ethel Barrymore were still newer as stars, but those four did well. I should say that the year's average net income of the twelve actresses was not less than $30,000. When you add to that the reward of fame, is it any wonder that there is a lot of hard struggle for the dramatic prizes?"

I asked the manager why he had not mentioned Richard Mansfield or Edward H. Sothern. "I have left them to the last," he replied, "because they are exceptional in a business way. They have deliberately sacrificed money in the furtherance of their ambitions. They have burned heaps of money to the glory of themselves and Shakespeare. Mr. Mansfield's production of 'Henry V.' was so costly in the mounting, and employed so large a company of actors and figurants to pay and transport, that no one can tell whether or not he makes both ends meet, notwithstanding that his audiences have been generally large. He might have made $40,000 to $60,000 in the season if he had used plays no more than ordinarily expensive. As it is, he may not have cleared a cent. He has acquired a tolerable fortune, however, having more than retrieved the losses of his early ventures. Mr. Sothern was making money fast and steadily with melodramas when he determined to bring out 'Hamlet' handsomely. He invested in the admirable but not businesslike enterprise every dollar he had saved. The outfit was burned while he was on the tour, and, instead of finishing the season with borrowed scenery and costumes—as he had ample excuse to—what did he do but have a complete duplicate made of the original mounting. I really wish you would quote me as saying—for no other phrase conveys my meaning—that Mansfield and Sothern make me tired."

Do not let my friend's fatigue keep you

Digitized by Google Original from UNIVERSITY OF MICHIGAN

from esteeming Mr. Mansfield and Mr. Sothern highly for setting up a professional standard above that of business prosperity. They deserve your sympathetic admiration. But there is no need to commiserate them. They are not as rich in money as they might be if they had provided entertainment cheaper to produce and easier to sell. But their rewards are ample in fame, and not niggardly in fortune. Neither of them is a great tragedian, but each is a fine artist, and the fact about them to make friends of the drama cheerful is that the name of Shakespeare has not spelt ruin for their costly enterprises. There is now a public to appreciate and recompense the very best that can be done on the stage. It is true that our people do not regard the actor as a preacher, or any kind of teacher, and that he cannot hold their attention unless he diverts them. But they will take along with the diversion the best art that he is a master of, and the only proviso they make is that he shall not be uninteresting. They will not spend their time and money on dulness. They will throng to plays that are literature if they are also engrossing. Nothing is too good for them intellectually. Perhaps nothing is too bad for them morally, more is the pity, but take my word for it (and verification is easy) that wickedness does not thrive at the theatre unless there is excellent art in it. No play is ever popular merely because it is indecent. The foulness must be permeated with something better, or it will be rejected. Examine the several plays of the "Camille" class which have been prosperous within a year or two, and you will find that, like "Camille," they were full of heart and soul—that they did not succeed because their heroines were social outcasts, but because they were women whose misfortunes were set forth in irresistible appeals, not to a depraved taste, but to sympathetic consideration. The vast majority of us who go to the theatres prefer cleanly pieces. Do you doubt it? Then be convinced by my assertion of the truth, readily substantiated, that wholesome dramatic matter sells more largely and far longer than that which is tainted. That is to say, the conditions are favorable to the actors. They need not do degrading things in order to satisfy the general public. They are not compelled to lower themselves deplorably to be on a popular level. At the worst, the range of quality in their performances does not sink nearly so low as it used to, and at the upper end nothing has yet been so lofty as to rise beyond the comprehension or the liking of suitable audiences. No artistic representation of a worthy play in this city of New York fails to get its just deserts. Our taste is keeping pace with the skill of the actors. We may well be cheerful about the theatre.

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

UNINVENTED INVENTIONS.

SOME UNSOLVED PROBLEMS WHICH OFFER GREAT FORTUNES TO ANY ONE WHO CAN MASTER THEM.

By Francis F. Coleman.

WHAT the inventor has done is marvellous enough; but, from our present standpoint, what he has not done is even more extraordinary. A glance at the problems still unsolved can hardly fail to fire the imagination.

First of all are the transportation improvements for which the world is waiting. Trains and ships which were marvels for speed a generation ago are hardly satisfactory for freights to-day, and our longings to annihilate space are the foundations of present efforts to build the flying machine. As the post-chaise speed of a century ago gave way to that of the sixty-mile-an-hour express train, so must this speed give way to the demands of a new century. We want Europe within two and one-half days' and San Francisco only one and one-half days' journey away.

ONE THING NEEDED IN ORDER TO "ANNIHILATE SPACE."

PROBABLY nothing has stood more in the way of such attainments than the absence of a true rotary steam engine. With road-beds such as modern engineering has provided for our railroads, rails of steel, and smooth-running cars, there would seem to be almost no limit to the speed at which trains might be run with safety, but for the vibrations produced by the oscillating steam engine. Although skilful mechanics have balanced these moving parts as perfectly as was possible, the locomotive engineer will tell you that long before his engine reaches a speed of a hundred miles an hour, its great mass is in a quiver from end to end and ready to fly from the tracks upon the slightest occasion. On high-speed steamships the vibrations of the engines are not only a source of great discomfort to passengers, but threaten the strength of the vessel itself. Although the inventor's quest for it has been long and arduous, the practicable rotary steam engine still remains an "uninvented invention." The nearest approach to a solution is that offered by the steam turbine, and the use for that must be limited.

A true rotary engine has, however, been found in the electric motor. In the electric generator and motor are combined the two requisites for the ideal production and transformation of power. Not only are they capable of perfect balance and running without vibration, but they do away with the greater part of the loss of energy for which the steam engine is notorious.

Here, then, is the means at hand for the inventor to meet the wants of modern traffic, while sticking close to earth and avoiding the dangers of "lighting," which must always attend every attempt to fly.

Electric cars have already attained speeds near to the one-hundred-miles-an-hour mark in safety, and it has been announced recently that the German Emperor has authorized the building of a road whereon it is intended that trains shall run at a speed of one hundred and fifty-five miles an hour. Air-ship traffic would find it hard to compete with this.

Railroading has already been a prolific source of profit to the inventor, but before speeds materially higher than those now used can be generally adopted, he must be called upon to again improve the railroad in its every member. The rail joint must either be abolished altogether, making the lines continuous by welded joints, as is done in the best street-railway practice, or a mechanical joint better than any yet made must be invented. But more important than all will be the methods of preventing collisions while despatching trains at short intervals. Since electricity will be the motive power, it is possible that this may be so applied as to make it impossible for two trains to be run into each other even by intent. When one train approaches another within a given distance its power could be

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

cut off automatically, and if it ran within another given distance the power could be reversed and brakes set.

Nothing must be left to chance when trains are flying along at a rate of more than 225 feet a second. Safety and economy must both be achieved, but there are also riches and honor to be won in that field.

Mr. Charles H. Parsons, of Great Britain, whose experimental boat, *Turbinia*, demonstrated the successful appliance of the steam turbine to the propulsion of vessels, has promised to build a ship to make fifty miles an hour whenever capitalists come forward to pay for her — and his torpedo-boat catchers, built for the British Government, have shown his ability to keep his promise. Others have planned vessels to be driven by electric motors with power derived from vapor engines. This field offers as great promise to the inventor as the other. With ocean greyhounds making railroad speed over the face of the ocean, it is hardly probable that passengers could be persuaded to ride beneath the surface.

ECONOMY INDUCING ENERGY TO WORK.

WHILE certain inventors are achieving success in equipping railroads, ships, and factories with machinery to meet the demands of an exacting age, others bend their energies to solving the still more important problem of economizing coal or finding new sources of power.

Coal is King to-day. Whether we use steam engines, electric engines, gas engines, compressed-air engines, or others to drive the wheels of industry, the one great source of energy is coal.

Five hundred million tons of coal a year are mined and transported to keep the world's furnaces aglow. Allowing for the usual waste in mining, this means a solid mass of coal that measures half a mile in length, breadth, and thickness. One hundred thousand men worked thirty years, it is estimated, to build the pyramid of Cheops; and yet the annual output of coal is equal in bulk to two hundred such pyramids!

Under the best conditions, we waste six-sevenths of the heat value of this fuel, and it may fairly be estimated that in general practice hardly the fifteenth part of its value is realized for actual work.

Here, then, is a field for the genius of the inventor wide enough to satisfy the most ambitious. First, the task is to draw from coal something like its real value in work, and next to find a substitute to provide against the time when the storehouses of coal, petroleum, natural gas, and other fuels shall be emptied. Thomas A. Edison, whose achievements in applied science have left him without a peer, and Nikola Tesla, the great necromancer in the field of electricity, have set for themselves the task of solving this problem, and mighty men of science in Europe are working toward the same end. Mr. Edison's aim is to find a way toward greater economy in the use of fuel. A bucketful of coal, he has declared, should drive an express train from New York to Philadelphia, and a few tons be sufficient for the ocean steamship, where now her bunkers must hold thousands.

That there is hope for those who seek higher economies in the direct use of fuel is evidenced by advances already made. The boiler and steam engine of a century ago, at its best, was capable of giving back but six per cent. of the energy of the coal, while to-day they return fourteen per cent., and coal turned into fuel-gases promises to give still higher results, when used through the medium of gas engines, than can be had by turning its heat into steam.

Something of what we should be able to accomplish is indicated by figures.

In every pound of coal resides an energy which scientists express in heat units, each of which is capable of lifting 772 pounds one foot high. An average quality of coal contains 14,000 heat units, representing in round numbers 10,000,000 foot-pounds of energy. What work a pound of coal should do may be judged by comparing these figures with those which represent the labor of man and of a horse.

A hod-carrier, making his weary trips with brick and mortar, climbing stairs or a ladder, will in a day of ten hours exert 2,088,000 foot-pounds. One pound of coal burned under perfect conditions would do five times as much work.

A horse drawing a cart or plough expends 12,441,600 foot-pounds in the course of a day's work. The burning of one and one-quarter pounds of coal should do as much. The theoretical horse-power equals for ten

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

hours but the proper consumption of 1.98 pounds of coal, and yet the best results secured in the largest steam plants still require the burning of one and one-half pounds of coal per hour for each horse-power produced.

Now, apply the same figures to a great steamer like the *Kaiser Wilhelm der Grosse,* which uses 30,000 horse-power to drive her across the Atlantic. She uses but about one and one-half pounds of coal per horse-power an hour. At that rate a five-and-one-half-day trip requires the burning of 2,870 tons of fuel. Nearly 2,500 tons of this might be saved if the theoretical value of the coal could be secured.

Here is a wide margin to be cut down, and every step in the right direction is certain to bring fortune to the inventor.

NIKOLA TESLA'S QUESTION AND ANSWER.

TWO general methods for securing in power the higher values of coal have been suggested. One is to get perfect combustion under circumstances where no heat shall be lost up the chimney or by radiation, and the other is to turn the fuel into electrical energy directly through the medium of some sort of a voltaic cell or battery.

Mr. Edison has taken up both ideas, and recently he described a mechanical device which he had designed in the former direction. He acknowledges that the idea came from using a German foot-warmer.

Mr. Edison's device consists of a double-walled furnace, between the walls of which compressed air is fed. Enough of this air is allowed to enter the inner enclosure to insure the combustion of fuel fed therein. The compressed air, absorbing heat from the burning fuel, expands and gives out its power through an engine, and this power is added to by the gases of combustion which join the air on its way to the engine. Mr. Edison declares that a loss of only about two per cent. of heat occurs in the apparatus.

Little progress has been made in the attempt to use coal as the active agent in the voltaic cell. Carbon shows little disposition to combine with oxygen except when heated, and then it prefers to burn in the ordinary way to being consumed in any sort of battery cell. Hot cells and cold cells have been tried. Cold cells have been definitely abandoned, and hot ones have given results not very encouraging.

Mechanical stokers have done much to economize coal, and invention is now busy trying to find a practicable way of feeding coal to the fires in a fine powder so as to secure perfect combustion without an excess of air.

But Tesla asks: Why should mankind use coal at all? John Ericsson long ago sought emancipation from the black king through a solar engine, and it was he also who led the way to the gas and motor engines, through the invention of the hot-air engine.

Tesla, however, would break away from fuel entirely. Throughout the earth are waterfalls, great and small, fed by waters sucked up by the sun's power, transported by the winds, and dropped on mountains and uplands, ready to give back the force which lifted them, in their descent to the sea.

Harness the waterfalls of the world by electricity, and make them do your work, Tesla says; and already his discoveries have set Niagara to driving the wheels of industry in Buffalo, and for use in cities far away. Waterfalls over many parts of the earth are being put to similar work.

Were these great water-powers situated where their energies are needed, the problem of using them would be simple. Then it would be a matter of mere cost. A ten-hour-a-day horse-power in the world's market is worth $20 a year. Hidden in the broken fastnesses of mountainous countries, far away from towns, are, however, many of the best water-powers, and these are useless unless their energies can be gathered up and transmitted with economy for long distances.

Using high voltages, electric lines are now built which convey hundreds of horse-power over wires hardly bigger than those of a long-distance telephone line, and many more are projected.

But although some of these lines are a hundred and fifty miles long, they do not yet fill the measure of Mr. Tesla's dream.

"I must send these energies hundreds, nay, thousands of miles," he has said, "and direct them at will. Wires are useful, but I must do this without wires. Then will the power of the sun do the world's work."

Mr. Tesla has already announced the dis-

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

covery of a system by which to accomplish the transmission of electric power through the air, and without wires, but until he proves his theories by demonstration, the problem may still be counted as among the "uninvented inventions." Even when he makes the demonstration, it will merely open up a wider field to the general inventor.

IN VIEW OF A NEW WORLD.

CLOSELY allied to the transmission of power without wires is the ever-interesting subject of telegraphing and telephoning without wires. Here is a field which should be prolific of new inventions. What Mr. Marconi has accomplished is but a beginning, and already the air is full of rumors of more wonderful inventions to come. This field is open to all comers.

One who has stood in Mr. Tesla's laboratory, and seen a vacuum tube glow like sunlight when held only in the great electrician's hand, knows that the problem of producing light without heat is nearly solved, but before those glowing tubes can take the place of ordinary lights for home and shop, invention must be busy.

Looking upon those glowing tubes, and realizing that the light within is caused by clashing billions of electrified atoms, and then realizing that the X-ray which reveals our very bones is but another manifestation of like power, we find ourselves at the entrance of a new world, where science is merely treading the threshold.

Röntgen himself, though the discoverer of the mysterious rays that bear his name, called them X-rays because they represent a mysterious quantity in science.

Becquerel has since discovered that many natural substances emit rays like those of Röntgen, which make photographs in the dark and act as well through wood or metals. Thorium, uranium, bismuth, and barium, in various compounds, have been proved to have this quality, and they are also capable of exciting the phosphorescent screen used to render visible the disclosures of the X-rays. Here, then, is a suggestion of a new force more subtle than electricity, and perhaps destined to open to man fields hitherto not even dreamed of.

The witchery of modern science reached its highest point when it produced the telephone, which challenges the wonder of even those who use it daily. Yet, if appearances are not deceiving, the day is not far distant when, with instruments not so very different, we may see the friend a thousand miles away with whom we talk, or even photograph the scenes around him. Here is a field for the coming inventor which offers virgin soil. How it is to be conquered has only been remotely suggested.

Perhaps every substance in Nature emanates its own peculiar rays, and each of these may be able to make itself manifest on delicate instruments. Or perhaps the instrument for seeing afar may be made upon the principle that each color of light has its own effect, which may be caught on electrical conductors and transmitted afar, where each varied impulse may be sorted out like those of the quadruple telegraph, and made to reproduce its source in picture form. It was such an instrument which a Polish inventor promised to exhibit at the Paris Exposition, but he failed to keep his promise.

THE CRY FOR NITROGEN.

THESE, however, are speculations. Returning to the practical field, there is one invention still waiting for the right man, which transcends in human importance all the others. To the man who solves this problem the world will owe wealth and honors such as no man yet has earned. It is the problem of restoring fertility to the worn-out fields of the world.

Perhaps when China's doors are thrown open the western world may learn from her valuable lessons as to how a teeming population can be fed for thousands of years without exhausting the soil. We may also get some lessons as to how a vast people can be governed solely through the power of philosophical teachings.

Western civilization, pushing ever into new lands, has left behind it a sterility of soil which, within a few years, has brought from the keenest scientific observers a most serious note of warning. A day of reckoning is almost at hand, when the earth will no longer be able to feed the people. There is no help to be had through farther pushing onward, for, vast as seems the parts of the earth yet unsettled, it is declared that in all that area there is little land which can profitably be brought under the dominion of the plough. For the older fields, which must be our dependence, one thing alone,

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

the agricultural chemists declare, is necessary to bring them back to fertility. This is fixed nitrogen.

Vast fortunes have already been reaped by the "Nitrate Kings" of England from the nitrate deposits in Peru, and nations have warred for the possession of these fields.

Nitrogen is one of the most plentiful of elementary gases, but it is also one of the most difficult to fix. Spread about the whole world, forming three-quarters, by bulk and weight, of the atmosphere, it challenges man to bring it under subjection. The form in which the agriculturist most needs nitrogen is as sulphate of ammonia. Nature, through her mysterious processes, forms ammonia, which, floating about in the air, is gathered up by nitric acid formed by lightning flashes and carried in reviving showers to the earth, but this quantity is not sufficient to replace the drain upon cultivated fields.

Recent agricultural experiments have shown that about the roots of clover and other leguminous plants there gather colonies of microbes which feed the plants with nitrogen, and methods for restoring and maintaining fertility have been suggested through cultivating these colonies. This field is now being explored.

Man, however, must have food, and his yearning stomach cannot wait. His safety lies in securing by artificial means an adequate supply of ammonia. Gas-houses, making illuminating gas from coal, are the principal sources of commercial ammonia, but the supply is so limited that the farmer can ill afford to buy.

Many ambitious attempts have been made to catch the flirtatious nitrogen of the air and turn it to commercial use. One of these, carried on at great expense and with persistence, was conducted within recent years under the leadership of William H. Bauldin, Jr., formerly of Baltimore. Success seemed almost assured, when an explosion in the works ended the life of their chief engineer, the late George H. Sellers, of Philadelphia, leaving the problem still unsolved.

FORTUNES THAT BRING BLESSINGS.

FAME, as well as wealth, will be the reward of every man who helps the world a step forward in solving the problems outlined above, but the inventor who seeks money chiefly may gather it more easily through simpler tasks.

Lighten the labor of the housewife or the workman even by a trifle, or make a toy which tickles the fancy of an idle hour, and the world will pour gold into your coffers in a Midas stream. One cent drawn from each of seventy-five million persons makes three-quarters of a million dollars.

A cool-handled stove-lifter, a hook and eye with a hump or a spring, a shoe-lace fastener, a crook in a hair-pin, a glove fastener, "Pigs in Clover," the "Fifteen Puzzle," the return rubber-ball, Crandall's building blocks, the copper shoe-tip, are each examples of the success of little things, and no day passes that some new novelty might not be added to the list. Some were the results of study, but more the outcome of an inventive mind trying to meet a present want. It was merely a lazy boy who wanted time to play who put the first automatic valve gear on a steam engine and revolutionized the earlier practice of steam engineering.

Every home and workshop teems with profitable suggestions to the man with open eyes and mind.

The fortunes of Mr. Carnegie, the Rockefellers, the Armours, and all their associates were founded on just such observations. The cost of refining kerosene oil is paid to-day from the despised sludge acid which used to foul our rivers and harbors. The old waste of the slaughter-houses brings in as much to-day as the flesh of the animals killed.

Nature has waste products still waiting for use. Prairie wire-grass was one of these. It is now made into handsome furniture and furnishings. Corn-stalk pith is made into fillings for war-ships' hulls, to close water-tight the holes made by an enemy.

Find a substitute for the elastic Para rubber, and your fortune is made. Celluloid and oxidized linseed oil are fair substitutes for some purposes, but nothing has yet been found that possesses the true elastic properties of rubber from Para. There is still "nothing like leather" for shoes, but the inventor may find a substitute to his profit.

The automobilist is waiting anxiously for a satisfactory power to drive his carriage. The same power would solve the vexed ques-

Digitized by Google
Original from UNIVERSITY OF MICHIGAN

tion of cross-town cars in New York. The Metropolitan Street Railway Company is spending thousands in experimenting with compressed air and storage battery cells, but these are only makeshifts. Steam railroads need a similar power to operate independent cars for suburban service.

Liquid air and acetylene gas both offer new fields for the inventor. Although liquid air can be made for perhaps five cents a gallon, as yet not a single commercial use has been found for it. Mr. Pictet, of Geneva, a pioneer in the liquefying of gases, has proposed to use the process for separating the nitrogen and oxygen of the air, and marketing each of these for special purposes. A factory in New York has the same objects in view. Carbonic-acid gas, frozen out of the atmosphere, would also be a product of the process.

In the heat of the electric furnace, lime and coal combine to form calcium carbide. This, slacked with water, resolves itself into lime and acetylene gas. Acetylene is one of the most fascinating of illuminants. Its flame, composed almost entirely of purple rays, glows white to the eye, and is many times as brilliant as that of street gas. Yet no way has been found to make it available for general lighting. It is used in isolated plants, but better appliances are still needed to render it safe and satisfactory.

Mr. Willson, at his old mill in Virginia, made calcium carbide by accident, and discovered it only when a piece, kicked into the stream, began to bubble furiously.

Gas-makers paid him half a million dollars for his patents, believing that acetylene could be used as a substitute for naphtha as an enricher for water-gas. They were disappointed. There are millions still waiting for the man who finds the needed substitute. Water-gas costs only about six cents a thousand cubic feet to manufacture, but until it is enriched by hydrocarbons it gives no light. Four to six gallons of naphtha to the thousand feet is cooked into it to make it an illuminant. Naphtha costs about six cents a gallon.

AN INVENTION IS A FULFILMENT AND A NEW PROPHECY.

WHEN the inventor has successfully solved the problems to which attention has herein been directed, and met each of the other demands of the day, he will but have broadened out his own field of labor.

Each new invention calls at once for more. The gas range, which has only just forced recognition for itself as a household necessity, cries out for the invention of proper utensils to use upon it.

Asphalt streets have set new tasks for the inventor. He must make new types of shoes to give easy and secure footing for horses, and new street-cleaning apparatus. With rougher pavements we were satisfied to get rid of the coarser dirt from the uneven surface, but now we are demanding apparatus that will rid our streets of dust as well.

Invention has entered intimately into every feature of our lives. From fabrics and foods every article in our stores shows the work of inventive genius, and suggests the possibility of further improvements. The grocer finds more than sixty per cent. of his wares all weighed, measured, and put up in packages for him, and the butcher, the baker, and greengrocer each pay tribute to the inventor for conveniences which a few years ago were unthought of.

Upon such foundations the inventor of the future is to build, and the handsome fortunes which have rewarded those whose work is now before him give most solid assurance that his reward will be sure.

His field has no boundaries. Every forward step discloses new possibilities. The things which we use to-day as if we had always had them, were unthought of a generation ago, and within another generation inventive talent will undoubtedly exploit still other realms of which we do not even dream.

"There are more things in heaven and earth, Horatio,
Than are dreamt of in your philosophy."

Digitized by Google
Original from UNIVERSITY OF MICHIGAN